

COMMITTEES AND COMMISSIONS IN INDIA

COMMITTEES AND COMMISSIONS IN INDIA 1947-73

Volume II : 1955-57

Virendra Kumar



**Concept Publishing Company
DELHI**

This is not an export edition.

© Virendra Kumar 1975
Virendra Kumar (b. 1933)

First Edition 1976

Published by
Naurang Rai
Concept Publishing Company
65-F, Anand Nagar
Delhi-110035 (India)

Printed at
Radiant Printers
26, Old Market, West Patel Nagar
New Delhi-110008 (India)

*Dedicated to
MY MOTHER
Who inspired me
to rise in life*

PREFACE

This second volume attempts to understand and analyse the activities of the various Committees and Commissions during the period 1955-1957, which has received, as far as the previous volume is concerned only scant attention—of even bibliophiles and documentation experts. It is known that the governments all over the world largely rely on Committees and Commissions or their decisions on particular subjects. Governments make an extensive use of the instruments of the Public Inquiries which ultimately help in lessening managerial tensions as well as quietening allegations of misrule. According to John Stuart Mill, "A man seldom judges right, even in his own concerns, still less in those of the public, when he makes habitual use of knowledge but his own or that of some single adviser." As such the "committee system" greatly helps the proper functioning of a democratic set-up.

A "Commission" is a 'Governmental agency created to perform a particular function such as special investigations or on governmental regulations of business'. It is appointed mainly when it is thought that a matter involves some financial questions. There are other reasons for which a Commission is appointed, e.g., in matters pertaining to welfare of the State and its citizens and for improving the efficiency in an administration. The status of a "Committee" is also the same as that of a Commission, but it does not possess as wide powers as are enjoyed by a Commission and has to limit itself in relation to specific work assigned to it under its terms of reference. While arriving at decisions in the form of recommendations, a Committee or a Commission ensures that such decisions are representative of interests of various types of people and also a safeguard against abuse of power.

The "Committees and Commissions" always advise a Government; offering valuable suggestions and recommendations for smooth operation and efficiency in administration for the welfare of the people.

A Committee or a Commission comprises a Chairman, the Members and Member-Secretary (sometimes there is also an Assistant Secretary). In some cases there are even One-man Commissions and the enquiry in such Commission is entrusted to an Officer-on-Special Duty.

The Chairman of a Commission is a person well-versed mostly in legal affairs and is often a retired Judge of a High Court or the Supreme Court of India. Occasionally, a member of Parliament is also appointed as the Chairman of a Commission : Regarding Committees, the Chairman is mostly a specialist in the subject of the Committee. He can be a Leader or a Convenor also, if he heads a Panel, a Study Group, or a Delegation, etc.

The Members of a Commission, Committee, Panel, Study Group, etc., are specialists in their respective Fields and provide valuable guidance to the Commission in making recommendations.

The Member-Secretary or Secretary is nominated from among the experienced officials who have the requisite competent knowledge of the subject on which the Commission or the Committee is appointed.

This Study of Committees and Commissions is divided into two main parts :—

- (I) PRE-INDEPENDENCE : From 1772 to August, 1947 ; and
- (II) POST-INDEPENDENCE : From August, 1947 to 1973.

The first volume covers the period from August, 1947 to 1954. The present book, Volume II in the series covers the period from 1955 to 1957.

The work provides information on subjects like : Bibliographical Data of the Committees and Commissions; Chairman, Leader, Convenor, etc., of the Committees or Commissions; Appointments; Terms of Reference; Contents; and Recommendations.

ARRANGEMENTS: The Arrangement of the “Committees and Commissions” is firstly chronological and within it items are arranged according to their Dates of Appointment and not according to their Dates of Publication.

I am sure that this Reference Work will continue into a number of Volumes. For, it is unique in nature. I have spared no efforts to make it a comprehensive reference work and it will be of great use to the research scholars, sociologists, historians, economists, students of political science and all those connected with the study of administration and legal affairs. I have tried my level best, to rectify all omissions or errors that I noticed in the previous Volume. It will be my effort to go on improving these volumes. The introductory part in the Volume I deals in detail about the Why, What and How of the Committees and Commissions.

In the end, I must express my gratitude to Shri D.R. Kalia, Director, Central Secretariat Library, New Delhi, for his valuable guidance without which it would not have been possible for me to bring out this work. I am also indebted to Shri J.C. Srivastava, Librarian, National Archives of India, New Delhi, Shri S.P. Kulsreshtha, Librarian, Administrative Reforms Department and other friends who have helped me a lot in the process of compilation of this Volume. I must also express my gratitude to the Press that reviewed and appreciated the first Volume in the series.

I am immensely grateful to Dr. L.M. Singhvi, Advocate-General of Rajasthan and Executive Chairman of Institute of Constitutional and Parliamentary Studies, New Delhi, for writing a Foreword.

I am also thankful to my wife and children who have sacrificed their personal comforts by providing me every facility to finalise this Volume within a reasonably short time.

NEW DELHI

Dusshera

October 2, 1976

VIRENDRA KUMAR

CONTENTS

1955

1. Dock Workers (Regulation of Employment) Enquiry Committee, 1955.	1
2. Pulse Milling Committee, 1955.	12
3. Education Committee for the Andaman and Nicobar Islands, 1955.	13
4. Lower Damodar Investigation Committee, 1955.	17
5. Ad Hoc Committee for Coir Rope, 1955.	18
6. Oilseeds Crushing Industry Inquiry Committee, 1955.	19
7. Public Services (Qualifications for Recruitment) Committee, 1955.	22
8. Committee to Study the Question of Formulating Uniform Standards in Respect of Education and Regulation of Practice of Vaidyas, Hakims and Homoeopaths—Final Report, 1955.	29
9. Committee to Study the Question of Formulating Uniform Standards in Respect of Education and Regulation of Practice of Vaidyas, Hakims and Homoeopaths—Interim Report, 1955.	30
10. Ad Hoc Committee on Slaughter-Houses and Meat Inspection Practices, 1955.	31
11. General Education Study Team, 1955.	34
12. Committee on Problems of Reorganisation, 1955.	36
13. Committee on Size of Holdings, 1955.	42
14. Committee on Tenancy Reforms, 1955.	45
15. Official Language Commission, 1955.	53
16. Village and Small-Scale Industries (Second Five-Year Plan) Committee, 1955.	67
17. Railway Freight Structure Enquiry Committee, 1955.	69
18. Rail-Sea Co-ordination Committee, 1955.	75
19. Railway Metric Committee, 1955.	78
20. Air Transport Council, Indian Airlines Corporation's Fares and Freight Rates, 1955.	80
21. Engineering Personnel Committee, 1955.	82
22. Study Group on Educated Unemployed, 1955.	85
23. Advisory Committee for Libraries, 1955.	86
24. Alcohol Committee, 1955.	92
25. Sethusamudram Project Committee, 1955.	95

26. The Committee on Amalgamation of Collieries, 1955.	96
27. Suburban Train (Bombay, Calcutta and Madras) Overcrowding Enquiry Committee, 1955.	101

1956

28. Assessment Committee on Basic Education, 1956.	104
29. Committee on Building Foundations in Shrinkable Soils (Black Cotton Soils), 1956.	109
30. Indian Delegation to China on Agricultural Planning and Techniques, 1956.	111
31. Irrigation and Power Team on Lakkavalli Project (Mysore State), 1956.	113
32. Team for the Study of Community Projects and National Extension Service, 1956.	115
33. Export Credit Guarantee Committee, 1956.	119
34. Machine Tool Committee, 1956.	125
35. Tobacco Expert Committee, 1956.	135
36. Expert Committee on the Forest Research Institute and Colleges, Dehradun, 1956.	139
37. Ambar-Charkha Enquiry Committee, 1956.	140
38. The Committee on Construction of High Dams in Seismic Zones, 1956.	143
39. Netaji Enquiry Committee, 1956.	144
40. Committee to Enquire into the Position of Sand Supplies for Purposes of Stowing in the Jharia/Raniganj Coalfields after Completion of Dams by the Damodar Valley Corporation, 1956.	145
41. Study Group on Efficiency and Economy in the Irrigation and Power Sector, 1956.	147
42. Finance Commission, 1956.	158
43. Committee on Co-operative Law, 1956.	162
44. Expert Committee on Economy in the Use of Cement in Building Construction, 1956.	166
45. Committee on Electric Furnaces, Steel Foundries and Steel Re-rolling Mills, 1956.	167
46. Committee on Economy of Iron and Steel Building Construction, 1956.	171
47. Technical Training Committee, 1956.	180
48. Commission for the Establishment of a Hotel Training Centre in India, 1956.	183
49. Sanskrit Commission, 1956.	185
50. Three-Year Degree Course Estimates Committee, 1956.	199
51. Sub-Committee of the Central Fruit Products Advisory Committee on Chutney Industry in India, 1956.	200
52. Committee of Enquiry into Demands of Labour of Port and Dock Workers, 1956.	202
53. Judicial Inquiry into the Causes of the Accident to Train No. 603	

Tuticorin Express between Ariyalur and Kallagam Stations on the Southern Railway on November 23, 1956.	210
54. The Commission of Inquiry to Ascertain the Causes of the Accident to 565 Down Passenger Train between Jadeherla and Mahbubnagar on the Central Railway on the Night of September 1/2, 1956, 1956.	211
55. Commission of Inquiry—Inquiry on the Administration of Dalmia-Jain Companies, 1956.	214

1957

56. Commission on Certain Aspects of Cooperative Movement in India, 1957.	219
57. Heavy Engineering Committee, 1957.	221
58. Hotel Standards and Rate Structure Committee, 1957.	224
59. Irrigation and Power Team on Chambal Project (Madhya Pradesh and Rajasthan), 1957.	237
60. Library Committee to Advise the U.G.C. about Development of Libraries and Their Organisations, 1957.	244
61. Selected Buildings Projects Team on Multistoried Buildings, 1957.	250
62. Customs Reorganisation Committee, 1957-58.	251
63. Export Promotion Committee, 1957.	261
64. Inland Water Transport Committee, 1957.	264
65. Committee on Milk Powder Industry, 1957.	269
66. Buildings Projects Team of Public Works Administration, 1957.	272
67. Committee of Engineers, 1957.	275
68. Jute Enquiry Committee, 1957.	278
69. Technical Committee on Cement, 1957.	282
70. Selected Buildings Projects Team on Grain Storage Structures, 1957.	284
71. Selected Buildings Projects Team on Slum Clearance, 1957.	287
72. High Level Committee on Floods, 1957.	288
73. Coal Price Revision Committee on the Bengal-Bihar Coalfields and the Outlying Coalfields (other than Assam and Andhra Pradesh), 1957.	290
74. Class IV Staff Promotion Committee, 1957.	302
75. Companies Act Amendment Committee, 1957.	304
76. Foodgrains Enquiry Committee, 1957.	308
77. Banaras Hindu University Enquiry Committee, 1957.	325
78. Minor Irrigation Committee, 1957.	348
79. Study Group on Social Security, 1957.	357
80. Commission of Inquiry on Emoluments and Conditions of Service of Central Government Employees, 1957-59.	359
81. Committee of Parliament on Official Language, 1957.	374
82. Working Group on Industrial Cooperatives, 1957.	388
83. Scavenging Conditions Enquiry Committee, 1957.	397

84. Ad-Hoc Committee on Cottonseed Oil Industry, 1957.	408
85. Committee for the Integration of Post-Basic and Multipurpose Schools, 1957.	411
86. Expert Committee on Coal Consumption on Railways, 1957.	412
87. Central Water and Power Commission Reorganisation Committee, 1957.	414
88. Commission of Inquiry to ascertain the Causes of the Accident to I Down Bombay-Calcutta Mail Train between Padali and Asvali, Central Railway on the Night of November, 23, 1957, 1957.	419
Chairman Index	421
Index	423

1955

DOCK WORKERS (REGULATION OF EMPLOYMENT) ENQUIRY COMMITTEE, 1955—REPORT

Delhi, Manager of Publications, 1955. 371p.

Chairman : Shri S. S. Vasist.

Members : Shri A. Ramaswami Mudaliar; Shri S. C. Sheth; Shri A. N. Chowdhury; Shri Biswanath Dubey; Shri G. S. Dhara Singh; Shri Adhir Banerjee; Shri Vincent Vaz; Shri K. Mitter; Shri V. A. Jaywant.

Co-opted

Members : Shri R. Gupta; Shri Makhan Chatterjee; Dr. (Mrs.) Maitreyee Bosc; Shri Naresh Nath Mookerjee; Shri G. Venkateshwara Ayyar, Shri S. C. C. Anthoni Pillai; Shri C. Govindarajloo; Shri P. Lakshmipathi Naidu; Shri L. T. Gholap; Shri P. D. Mello; Shri H. N. Trivedi.

Secretary : Shri D. K. Guha.

APPOINTMENT

The Dock Workers (Regulation of Employment) Enquiry Committee was constituted under the Ministry of Labour vide their Resolution No Fac.80(6)/55, dated January 14, 1955.

TERMS OF REFERENCE

- (i) To enquire into the working of the Dock Workers (Regulation of Employment) Schemes in Bombay, Calcutta and Madras, to examine all difficulties encountered by the parties interested in the working of the Schemes, and to recommend what modifications, if any, in the Schemes are necessary;
- (ii) To enquire into the necessity and feasibility of decasualising other categories of labour covered by the Dock Workers (Regulation of Employment) Act, 1948 (IX of 1948), at the three Ports—whether by inclusion in the existing Schemes or by the framing of special Schemes, and
- (iii) To prepare amendments to existing Schemes or to frame new Schemes for the further categories of labour, if any, recommended for decasualisation.

CONTENTS

Part I—Findings and Recommendations: Introductory; A Survey of the Implementation of the Schemes; Effects of the Schemes; Turnround of Ships; Productivity and Cost of Handling Cargo; Shore Labour and

Faeilities; Constitution and Funtions of the Dock Labour Board; Regulation of Employment; the Obligations, Labour Relations and Discipline; Wages and Allowanees; other Important Aspeets (Shifts, Overtime, Weekly Off, Holidays and Holiday Work, Cost of Operation of the Scheme and Levy, Workers' Welfare Fund, Exemption from Taxation, Illegal Gratification, Objets of the Seheme, Institution of Stevedores, Productivity and Turnround Statistics, Central Coordination); Deesualisation of other Categories of Dock Workers and Regulation of Employment of Unregistered Doek Workers; Training, Welfare, Health and Safety Measures; Conelusions; Note of Dissent Submitted by Shri G. S. Dhara Singh; Note of Dissent Submitted by Shri B. N. Dubey and Shri A. C. Banerjee; Comments on the Joint Note of Dissent of Shri B. N. Dubey and Shri A. C. Banerjee; Summary of Conclusions and Rceommendations. Part II—Draft Amendment Schemes and Draft Rules: Amended Bombay Doek Workers (Regulation of Employment) Scheme; Amended Calcutta Dock Workers (Regulation of Employment) Schemc; Amended Madras Doek Workers (Regulation of Employment) Scheme; Proposed Rules for the Regulation of the Employment of Unregistered Doek Workers. Part III—Appendiees I to X.

CONCLUSIONS AND RECOMMENDATIONS— SUMMARY

According to Clause 7(1)(a) of the Schemes it is one of the functions of the Doek Labour Boards to secure economic turnround of vessels and speedy transit of goods through the Port; it would appear that this item has not reeeived their due attention.

There has been a progressive deterioration in the turnround of ships at Bombay and Caleutta up to 1954 which was the worst year in this respect. This deterioration was due to a decline in the effective output of labour, for whatever reasons. In Madras, there has been a deterioration in the overall cargo handling period in respect of imports in the post-deesualisation period, partly due to a slight increase in the proportion of difficult-handling cargo and partly for loss in effective productivity. There has been a slight improvement in respect of exports in which the proportion of easy-handling cargo has also increased.

There has almost been a progressive deterioration in the output of dock labour at Bombay and 1954 was the worst year in this respect. The overall decline in the output during that year was of the order of 30 per cent as compared with that of 1951, the year just preceding the introduction of the Scheme. The deterioration in the turnround of vessels at Bombay, which was also worst in 1954, is entirely explained by the deterioration in the labour output.

The extent of the decline in the effective output of

labour in the post-deesualisation period would aeeount for the deterioration in the turnround of ships in the Calcutta Port.

At Madras, in the post-decasualisation period while there has been a deeline in productivity in ease of general eargo and sugar by 34 per cent and 23 per eent respetively, there has been an improvement in the ease of bag cargo by 11.7 per cent. In the case of ore, the level of output before and after the introduction of the Seheme has been the same.

The output of both pool and monthly stevedore workers at Calcutta was the lowest in the three Ports and there is a considerable difference between the produetivity of the workers at Calcutta and that of the workers at Bombay and Madras.

Workers arrive late for duty and leave early. The Deputy Chairman, the Executive Officer and other Officers of the Doek Labour Board should make frequent checks to ensure that workers start work punetually and do not leave before time.

The stevedoring expenses form a small part of the total of other expenses. The actual labour cost will be even less. A slight inerease in the direct stevedore labour cost, if neessitated by the provisions of the Seheme, should not, therefore, normally make a considerable difference in the overall transport expenses.

It cannot be accepted that there has been a deterioration in the shore facilities provided at these Ports. There has, however, been little or no modernisation or improvement in respeet of the lifting appliances at Caleutta and Madras. The attention of the Port Authorities may be invited to the desirability of providing modern and more effient applianees, not only while making replacements of existing assets, but also as additions, if necessary.

At all the three Ports casual labour is employed by the Port Authorities in varying magnitudes. The proportion of casual employment to the total employment is considerable. In order to create a proper healthy atmosphere amongst the shore and stevedore labour, who have to work side by side and on whose joint and coordinated efforts the rate of handling and the turnround of vessels depend, the question of decasualisation of the shore casual labour should be taken up. The Government may review the situation and suggest to the Port Authorities that a suitable decasualisation scheme in respect of casual shore labour may be framed by them.

The question of eliminating contractors' labour from work, which has come to be recognised as shore work to be done by the labour employed directly by the Port Authorities, should also be taken up when the framing of a Scheme for the decasualisation of shore labour is taken in hand.

The inability of the Doek Labour Boards to discharge their responsibilities has largely been due to the following reasons:

(a) The Scheme has certain loopholes and does not enable the Dock Labour Board to take adequate and effective steps to remove the causes of some failures complained of:

(b) No one in the Dock Labour Board has been vested, under the Scheme, with adequate executive authority to enforce the decisions of the Board;

(c) Certain functionaries under the Dock Labour Board, viz. the Administrative Officer, the Special Officer and the Inspectors, have failed to discharge efficiently the responsibilities that have been vested in them;

(d) The time of the Dock Labour Board has mostly been taken up by matters mainly concerning wages, allowances and service conditions of workers; little attention would appear to have been given to other important matters.

The Dock Labour Board should continue to be a tripartite body as at present.

The Chairman of the Port Authority, ex-officio, should continue to be the Chairman of the Dock Labour Board and the Scheme should specifically provide for that.

The Scheme should contain a provision which should authorise the Chairman, Dock Labour Board, to recommend to the Central Government the withdrawal of the representation of any organisation from the Board on the ground that the organisation has collectively failed to implement a unanimous or a majority decision of the Board; this provision however should not apply if the decision concerned is the basis of an industrial dispute under the law.

The Chairman of the Dock Labour Boards in all the Ports should be vested with powers like the Chairman, Dock Labour Board, Calcutta, for dealing with "go-slow" and "emergency" under present Clauses 36-A and 40-A of the Calcutta Scheme.

The Board should primarily devote its full attention to important matters of policy and the responsibility to implement decisions should rest on the Chairman who should be the Chief Executive of the Board. It is considered expedient that the powers and duties of the Chairman, Dock Labour Board, should be specifically defined in the Scheme and that the powers which can be exercised by the Board only should also be clearly stated.

All matters of policy, and in particular the matters itemised in Para. 711 of the Report, will be dealt with by the Dock Labour Board in the meeting.

The Chairman of the Dock Labour Board should have full powers to deal with all matters relating to the day-to-day administration of the Scheme with particular reference to the matters itemised in Para. 712 of the Report.

There should be a whole-time Deputy Chairman each at Calcutta and Bombay and an Executive Officer at Madras to assist the Chairman. The status of the Deputy Chairman should be comparable with that of the

Head of a Department under the Port Authority and he should be appointed by the Central Government. The Executive Officer should be of the status of the Assistant Traffic Manager, Madras Port Trust, and may be appointed by the Dock Labour Board. The Chairman may delegate, in writing, his duties, excepting those specifically mentioned in Para. 713 of the Report, to the Deputy Chairman or the Executive Officer, as the case may be.

The Government representatives on the Dock Labour Board should be effective and give to the Board the benefit of their experience by taking an active part in its deliberations.

The Port Traffic Managers at Calcutta and Madras and the Docks Manager at Bombay may also be nominated by the Government as ex-officio Members of the Board apart from the Chairman of the Port Authority.

At Bombay and Calcutta, the Deputy Chairman will also be one of the Government representatives on the Board.

It will be expedient if the Regional Labour Commissioner (Central) is not nominated on the Dock Labour Board: if at all it is necessary to nominate on the Government side someone concerned with the employment of labour, the Regional Director of Resettlement and Employment will be a suitable choice.

The continuity of the presence of the same member, as far as possible, was very necessary when the original Schemes were implemented and it will be more so when the amended Schemes are brought into force. This may be pointed out to the organisations which are asked in future to nominate their representatives on the Board.

The Administrative Bodies at Bombay and Madras have satisfactorily discharged the responsibilities and functions vested in them under the Schemes. The Administrative Bodies at Bombay and Madras should continue as at present.

The Administrative Officer at Calcutta has not been able to discharge effectively and satisfactorily the responsibilities and functions entrusted to him under the Scheme.

Should the stevedores at Calcutta be now able to make up their differences and come to the Government with a proposal, agreed to by both the Associations, for the constitution of the Administrative Body, the request should be favourably considered. Failing that an Administrative Superintendent of the status comparable with that of the Superintendent of Labour, Calcutta Port Commissioners, should be appointed by the Board. This Officer, though in immediate charge of the duties and responsibilities vested in the Administrative Body, should work under the direction and control of the Deputy Chairman and refer all important matters to him for decision.

The institution of Special Officers should be abolished altogether and the responsibility to enforce discipline should be vested in the Chairman, the Deputy Chairman

and the Executive Officer, as the case may be, and to a limited extent in the employers. The Chairman, the Deputy Chairman and the Executive Officer may be assisted by Personnel Officers appointed mainly for this purpose. The status of the Personnel Officers may be determined by each Dock Labour Board having regard to local conditions.

At Bombay, notwithstanding the abolition of the post of the Special Officer, the Inspectors may continue at the discretion of the Bombay Dock Labour Board, but as there is a possibility of confusion with the Inspectors appointed under Clause 6 of the Act, the designation of the Inspectors should be changed by the Bombay Dock Labour Board to Dock Overseers. At Calcutta, the Inspectors have not at all been useful and should be withdrawn. It may be left to the Dock Labour Board to devise, if necessary, a suitable machinery to achieve the object for which these Inspectors were appointed.

The Calcutta Dock Labour Board should have its own Secretary.

At Bombay, the supply of registered workers has, more or less, throughout the working of the Scheme, been inadequate. This factor could not but have adverse effects on the efficiency of the dock work there. After the recent recruitment in May, 1955, of 70 additional gangs and other workers, the labour supply has improved.

The registration at Calcutta had no relation to actual demands. The excess registration caused almost a financial crisis for the Dock Labour Board.

At Calcutta, the position at present is that there is definitely an excess in respect of Sirdars and Mates and a shortage in the category of Winchmen; the number of Rolias and Kamalias on register may not entail the payment of guaranteed minimum wages to them in any large proportions even when the labour output is at a reasonable level and the demands are normal, but there is a considerable scope for an increase in their average employment per month. It is not necessary, at present, for the Dock Labour Board to take any special steps other than offering voluntary retirement on existing terms to reduce the number of registered workers in these categories.

The incomplete gangs at Calcutta should be immediately completed with workers now available on the Register. Should the resultant reduction in the number of gangs result in some Sirdars and Mates becoming surplus, they may be kept unattached and utilised for relieving duties.

The Dock Labour Board, Madras, should review the Register and the position in regard to anticipated demands and take suitable steps early to avoid employment of casual labour. Should it be found necessary to make fresh recruitment, preference should be given to those workers who can prove to have worked in the Docks

for long periods but failed to obtain registration after application because they had not worked during the prescribed qualifying period for registration.

The Dock Labour Boards should make periodical assessment of their labour requirements and determine the anticipated demands based on long-term trade prospects affecting exports and imports as well as short-term fluctuations in trade and normal seasonal variations. The demands resulting from short-term and seasonal fluctuations should be separated from the long-term requirements and adjustments in the Register, whether implying increase or decrease, should be based on long-term variations only.

In order to meet the demands resulting from short-term or seasonal fluctuations, the Dock Labour Boards should have the authority to permit temporary registrations. They should specify the number of workers and the period of their temporary registration, which should be communicated to the "workers registered temporarily" who for brevity may be called WRT's. The WRT's should be entitled to attendance wages under the same conditions as permanent registered workers and their other service conditions may be prescribed by the Dock Labour Boards. They must comply with all the conditions of the Scheme and have the same obligations as permanent registered workers.

All registrations of new categories in future should be very carefully planned and carried out so that the problems which resulted from the registration already made do not come up again. The principles detailed in Para. 811 of the Report should apply in respect of all categories which have not yet been registered but may be registered hereafter.

Having regard to the local conditions, the Dock Labour Boards may prescribe maximum age limits for recruitment of fresh labour, whether permanent or temporary, and preference should generally be given to younger applicants.

In case any fresh recruitment is necessary, whether on a temporary or permanent basis, in any category already registered, the recruitment should be done from amongst workers registered with the local Employment Exchange. If, however, the requirement exceeds the number of suitable men available on the Register of the Employment Exchange on the day of the requisition, direct recruitment, after absorbing suitable men from the Employment Exchange Register, may be resorted to.

Each individual registered worker should have a proper photo identity card and an attendance and wage card. A proper Service Record for each registered worker should also be maintained which should be a complete record of all disciplinary actions taken against him as well as of promotions and commendations for good work.

It would be in the furtherance of greater regularity

of employment and the efficient performance of dock work if the monthly registers are not only retained but progressively expanded. The rate of expansion of the monthly register can be considerably quickened if the employment of workers on a monthly basis is allowed not only by individual "employers" but also by "groups of employers". The "employers" or "group of employers" should be allowed to select workers for monthly employment. Necessary provisions should be made in the Schemes accordingly and the limitation placed by the Delhi Settlement of May, 1954, on the number of monthly gangs to be retained by stevedores at Calcutta should be removed.

Monthly workers should have a reasonable security of retention on the monthly register. No transfer of a monthly worker to the pool should take place without the prior approval of the Chairman or the Deputy Chairman and that the employer or the worker asking for such a transfer should submit an application in writing explaining fully the reason for the transfer. The request will be complied with only if the reason is good and valid. No transfer should take place in anticipation of the Chairman's or the Deputy Chairman's approval.

The Calcutta Port Authority should be asked to take the responsibility of licensing stevedores, as is the case at Bombay and Madras, and Clause 10(1) of the Calcutta Scheme may be amended to be in line with the corresponding clauses in the Bombay and Madras Schemes. The registration fee for employers in future should be uniform for all the three Ports and the fee at Madras should be raised from Rs. 400 to Rs. 500.

At Bombay, the junior stevedore workers in the sub-pool maintained for relieving purposes may be called LRW's (Leave Reserve Workers). The practice of having such a sub-pool is considered sound.

At Calcutta, the procedure of booking of stevedore workers should be overhauled with a view to reducing the period, for which a worker has to wait to prove attendance, to not more than an hour normally.

The Calcutta Dock Labour Board also should have a sub-pool of LRW's (Leave Reserve Workers) from amongst the existing workers to fill casual vacancies in pool as well as monthly gangs.

All the members of the gang should present cards individually for booking. The head of the gang should notify to the booking office, at the time of booking, the number of vacancies in his gang. The booking office will then fill these vacancies from amongst the LRW's on attendance.

The Dock Labour Board, Madras, also should have a sub-pool of LRW's for filling casual vacancies. This will be particularly necessary if workers are formed in gangs.

The transfer of a worker from the Reserve Pool Register to the Monthly Register will not be considered

as a promotion and will not be subject to rules applicable to promotions. Such a transfer will be by selection by the employer or the group of employers who undertake to employ him as a monthly worker.

The Madras Dock Labour Board should pursue the question of forming regular gangs. The demands for half gangs, in addition to a full gang, which appear to be a frequent and unavoidable feature at Madras, may be met from amongst the sub-pool of LRW's.

The designations of senior and junior stevedore workers at Bombay and Kamalias and Rolias at Calcutta should be abolished and all these workers may be classified as "Stevedore Workers" or "Mazdoors". In view of the fact that there has been a difference in the wages of some of these workers, the stevedore workers under the new designation may be put on incremental scales of pay which may be fixed having regard to the fact that some of them enjoyed the benefit of officiating on a higher wage in the same or the higher group. The present wages of any worker should not be adversely affected by this change.

The three categories of Foremen Grade I, Foremen Grade II and Foremen Grade III, mentioned in Clause 11 of the Bombay Scheme, should also be abolished and in their place there should be one category named "Foremen" and a suitable incremental scale of pay should be fixed for this category so that they do not incur any financial disadvantage due to the abolition of the three grades.

The Sirdar of a gang in Calcutta has no well-defined duties apart from taking booking for the gang. There is no need for having two Supervisors in a gang of nine workers and the Dock Labour Board should re-allocate the duties between the Sirdar and the Mate of a gang in such a way that the Sirdar alone supervises the work of the gang and the Mate does the signalling work thus relieving a Rolia for normal cargo handling work.

The designation of Hatch Foreman at Bombay may be abolished and the present Hatch Foremen should be merged in the existing gangs as stevedore workers, but they may continue to carry on the signalling work. This change in designation, however, should be made without affecting the wages of the existing workers in this category and also without reducing the number of men in the gang who handle cargo at present. When this change is carried out, the number of workers in a gang will be nine instead of eight.

The extent and intensity of indiscipline, particularly at Bombay and Calcutta, are of an order that cannot but cause concern to those interested in port working as well as to the Government. Employer-employee relations at Calcutta have been particularly strained and those at Bombay have also not been happy.

The Dock Labour Board should endeavour to settle disputes about which a request for arbitration has been

made to the Central Government by the parties concerned and report to the Government the results of its endeavours. The Government should give due weight to the views of the Board which is a tripartite body and to a decision which may have been taken by the board unanimously or by a majority vote.

The Committee is of the opinion that the words "the rules of the port or place where he is working" in Sub-Clause (5) of Clause 29 of the Scheme are necessary as the rules of the port or the place of working must, in all cases, be enforced. Suitable amendment of the Clause, however, is necessary so that authorised representatives and supervisors of the employers are deemed to have proper authority to give directions hereunder. If the workers consider that the direction of the employer in any particular matter is not in order, they should seek correction by a reference to the appropriate authority and not stop the work. The Dock Labour Boards should get the employers' and employees' representatives together and persuade them to enter into joint agreements so that stoppages of work or lock-outs pending settlement of disputes are not resorted to.

It would be most expedient, without in any way infringing the rights of workers or a sound disciplinary practice, if the Chairman of the Dock Labour Board is made the highest administrative authority in disciplinary matters and disciplinary powers are delegated to the Deputy Chairman, the Executive Officer, the Personnel Officer, and the Employers to the extent appropriate in each case.

The object of giving certain disciplinary powers to the employers can be secured, to a large extent, if the Administrative Body which consists of employers only is vested with such powers.

The Administrative Body should have a Labour Officer or Labour Officers appointed by that Body with the approval of the Dock Labour Board. It will be the duty and responsibility of the Administrative Body, on receipt of a complaint from an employer in regard to an act of indiscipline or misdemeanour committed by a reserve pool worker while he was allocated to that employer, to apply through the Labour Officer the disciplinary procedure and, if necessary, to impose a suitable penalty within its powers against the pool worker. If on enquiry the offence calls for a penalty beyond its powers, it will report the case to the Deputy Chairman at Calcutta and Bombay or the Executive Officer at Madras for suitable action. Where there is no Administrative Body consisting of employers, the disciplinary procedure will be applied by the Personnel Officer on receipt of a complaint in writing from an employer.

A Record Sheet should be maintained in respect of every employer and the warnings in writing given to him under Clause 36(1)(a) should be recorded in that sheet. If any employer is found guilty of an offence for which

the penalty under Clause 36(1)(a) would be inadequate and that under Clause 36(1)(b) too heavy, the Chairman or the Deputy Chairman may record a censure in the Record Sheet advising the employer in writing that in the event of his being found guilty of a repetition of the offence for which he is being censured, the imposition of the next higher penalty, viz. "removal of his name from the Employers' Register" for a period to be determined by the Board, will have to be considered. A provision for a censure in this manner may be made in the Scheme. Further, the Scheme should also provide for the permanent removal of the name of a registered employer from the Employers' Register in grave cases.

Sub-Clause 2(d) of Clause 36 should, as an alternative to "termination of service", provide for "the removal of the name of the worker from the Workers' Register for a period not exceeding three months".

The Schemes for Calcutta and Bombay contain a provision for suspension pending enquiry. This provision should be incorporated in the Scheme for Madras also. The payment of subsistence allowance to the workers under suspension pending enquiry should not be limited to the "attendance wages" only and it should be one-fourth of the total daily time-scale wage inclusive of dearness allowance, or the attendance allowance, whichever is more. The Chairman may have the discretion in exceptional cases to grant a higher subsistence allowance not exceeding half the total daily wage inclusive of dearness allowance for the suspension period in excess of over a month. Further, if the suspended worker is honourably acquitted he should be entitled to the time-rate wages inclusive of dearness allowance that he would have earned had he not been under suspension.

A provision may be made in the Scheme to the effect that penalties leviable for acts of indiscipline or misdemeanour should also apply to cases of inefficiency.

The Scheme should specifically vest in the registered employers full disciplinary powers in respect of monthly workers and it should be entirely their responsibility to take disciplinary action against monthly workers employed under them without prejudice to the powers of the Chairman under Clauses 36-A and 40-A of the Scheme.

The maximum penalties which can be imposed by different authorities should be as follows:

1. Chairman: All disciplinary powers against registered employers and registered reserve pool workers and the special powers under Clauses 36-A and 40-A against all registered workers.

2. Deputy Chairman or Executive Officer: All disciplinary powers against registered employers and registered reserve pool workers excepting powers under Clauses 36-A and 40-A.

3. Personnel Officer: (i) Disciplinary powers against pool workers prescribed under Sub-Clauses 36(2)(a), (b) and (c), viz.

(a) to determine that, for such period as he thinks proper, the worker shall not be entitled to any payment under Clause 34;

(b) to give him a warning in writing;

(c) to suspend him without pay for a period not exceeding three days; and

(d) to suspend a worker pending enquiry.

(ii) Powers against registered employers should be limited only to warning in writing.

4. Administrative Body: Powers will be restricted to those permitted to the Personnel Officer and Clause 3(i) above.

Powers to deal with cases of inefficiency will vest in the Chairman and the Deputy Chairman only.

Appeals by workers against the decisions of the Administrative Body and the Personnel Officer shall lie with the Deputy Chairman at Bombay and Calcutta and the Executive Officer at Madras. Appeals against the decision of the Deputy Chairman or the Executive Officer, whether in original or on appeal, shall lie with the Appeal Tribunal. The decision of the Appeal Tribunal shall be final and there shall be no further appeal against its decision.

Appeals by registered employers against the decision of the Personnel Officer shall lie with the Deputy Chairman at Bombay and Calcutta, and the Executive Officer at Madras. Appeals against the decision of the Deputy Chairman or the Executive Officer, whether in original or on appeal, shall lie with the Chairman who shall forthwith refer the matter to the Central Government. The Central Government shall pass such orders on the appeal as it thinks fit.

The present system of time-rate wages, even though linked with an incentive bonus in one Port, has been totally ineffective in securing reasonable productivity from workers.

In order to ensure a reasonable output from workers and minimise the possibilities of the turnaround of ships in Indian Ports not being maintained at an acceptable level of efficiency in future, wages paid to workers employed in connection with loading and unloading of cargo must be linked with productivity and a system of "payment by results" should replace the present system of time-rate wages. It will also be desirable to provide for an "Incentive Bonus" in the system.

(a) Norms for productivity in respect of cargoes of different kinds and/or Lines and/or Zones should be determined by a Special Committee to be appointed by the Dock Labour Board consisting of representatives of employers, shipping companies, workers, Port authorities and a nominee of the Central Government. These norms should be fixed after giving due consideration to all relevant factors and local conditions including past performances in normal periods free from disputes between workers and employers. The norms should be

reasonably less than the maximum working potential of the workers. If any recognised norms are already in existence they may be adopted. Should the Committee be not able to prescribe agreed norms within a period of two months of having been asked to do so, the Chairman of the Dock Labour Board may determine such norms and submit them to the Central Government for their approval. The norms may be called the "Standard Output". To be entitled to the normal time-rate wages, a gang of stevedore workers should produce the standard output during a standard shift. If the durations of the shifts vary, the standard output for different shifts may vary proportionately.

(b) Workers producing more than the standard output should be entitled to an "Incentive Bonus" on a scale to be determined by the Dock Labour Board. In order that labour may not "sweat", the Dock Labour Board may prescribe the maximum tonnage beyond which no incentive bonus payment will be due.

(e) The Dock Labour Board may also allow a special "Target Bonus" to be paid at the end of each month to workers who consistently have produced the standard output but have not been able to earn Incentive Bonus.

(d) Workers who fail to produce a standard output in more than 50 per cent of the shifts worked by them should be liable to disciplinary action for inefficiency.

(e) Each Dock Labour Board should devise a suitable scheme which, inter alia, should relate the quantum of wages earned to the actual output of workers when they do not produce the standard output subject to the conditions:

(i) that a worker will be entitled to the normal daily time-rate wage only if he produces the standard output;

(ii) that the daily wage earned by a worker should in no case be less than a guaranteed minimum wage which shall be equivalent to three-fifths of his normal time-rate wage.

(f) The Scheme for payment by results prepared in accordance with (e) above should provide that a worker should be entitled to the normal time-rate wage for any period or periods for which loading or unloading may be held up for reasons beyond the worker's control, such as inclement weather or non-availability of cargo in case of export, or completion of work before the expiry of the full shift period.

(g) The scheme should be submitted to the Central Government for approval before it is implemented. Should the Dock Labour Board fail to submit a Scheme to the Central Government within three months of the direction from the Central Government to do so, the Government may prepare a Scheme and direct the Dock Labour Board concerned to implement that.

(h) All the foregoing provisions will apply to the monthly workers for determining their wages on the

days they work, and for the balance of the days for which they are entitled to payment, they will draw wages on a calculated daily time-rate.

(i) If any direction, action or failure of an employer or his representatives is likely to result in the output being adversely affected, it will be the duty of the head of the stevedoring gang to bring that to the notice of the Foreman immediately. On receipt of such a report, the Foreman must immediately advise the official of the Dock Labour Board appointed to deal with such reports. The head of the gang may also report to this official after having reported to the Foreman.

A method of determining the wages of a worker when his production is less than the standard output as required under Para. 1014(c) together with two examples have been given in Para. 1015.

It is extremely desirable that shore workers employed for loading and unloading of cargoes must also be brought under a piece-rate system of wages where this is not so at present and that this must be done immediately in respect of the Cranemen, in particular.

The Committee is unable to accept that the minimum wages which a dock worker must get, irrespective of any other consideration, should not be less than Rs. 100 p.m. Dock workers cannot be singled out to be entitled to any ideal minimum wages without any regard to other relevant and vital considerations.

Dock workers' earnings should be stabilised progressively at higher levels until a guarantee of 21 days in a month is reached. The progressive increase, however, should definitely be related to the quantum of total employment available in the docks and the wages which, on the basis of average employment, workers in the pool may expect.

The minimum number of days guaranteed for wages every month should be assessed annually on the basis of the average employment during the immediately preceding 12 months according to procedure laid down in Paras. 1020 and 1021.

If the average number of days in any year works out to be less than the minimum number of days for which wages have already been guaranteed, the latter number will not be reduced. In other words, the minimum number of days in a month for which wages are guaranteed will progressively increase but will never be decreased.

While deciding the question of additional recruitment under any category for meeting additional demands of work, the Dock Labour Boards must always bear in mind the repercussions which such additional recruitment may have on the average employment of workers which, as already stated, should be progressively improved.

It is neither necessary nor desirable to increase the quantum of attendance wage which should remain at

Re. 1 as at present. The Dock Labour Boards, particularly the Dock Labour Board, Calcutta, should take steps to improve the organisation in regard to booking so that a worker is normally required to attend the Call Stand only once a day and has not to wait for more than an hour to get his attendance marked. So long as a registered daily worker fulfils his obligations under Clause 29 there need be no ban on his seeking occasional employment elsewhere while he is not allocated for work to a registered employer.

The Calcutta and Madras Dock Labour Boards should also provide for payment of gratuity to registered workers as has already been done at Bombay.

The Madras Dock Labour Board should also have a Provident Fund Scheme as has already been done at Bombay and recently at Calcutta.

At each of the three Ports there should be three shifts round the clock with no interval between them; of these, two should be compulsory and the third optional for the employers subject to the approval of the Port Authorities.

Normally a worker should not be called upon to work even in two consecutive shifts. There should, however, be a mandatory ban on the employment of a worker in three consecutive shifts.

Pool workers should not be allowed to work more than nine shifts in a week or 33 shifts in a month. Further, when pool workers who have not reached this maximum limit of employment are not available, monthly workers may also be employed up to nine shifts in a week or 33 shifts in a month. Should these arrangements necessitate a monthly or a pool worker having to work in two consecutive shifts, he should be treated as having worked in two separate normal shifts and not deemed as having performed overtime work.

The Chairman, Dock Labour Board, may, however, in emergent circumstances allow a general relaxation in the ceiling mentioned above but such a condition should not be allowed to continue for any length of time and steps must be taken immediately so that the employment is brought within the maximum time limit permissible. If any permanent or temporary registration is necessary it should be so adjusted that the chances for employment of the existing workers during a month may not go below 26 shifts.

The Chairman, Dock Labour Board, in special circumstances may also authorise individual exceptions to the ceiling rule.

Normally overtime work should be permitted in respect of finishing ships only and it should not exceed two hours at a time. In exceptional circumstances, the Chairman, Dock Labour Board, may allow exceptions both in regard to the time and the reasons for working overtime.

Every worker should be given a weekly off on the

seventh day if he has worked for six consecutive days and the off-day should be staggered for daily as well as monthly workers so that the dock work goes on normally on all days including Sundays. The question of making the "off-day" a paid day should be examined by each Dock Labour Board after a reasonable period and if it is found then that the desired improvement in the output of labour has been achieved and sustained, it may be favourably considered by the Board.

While each Port may have certain closed holidays as may be decided by the Dock Labour Board, the number of 12 closed days at Bombay is excessive. The number of closed days in any Port should not be more than six in a year which may include the three national holidays, i.e. Independence Day, Republic Day and Gandhiji's Birthday. The Dock Labour Board, Bombay, should take steps to reduce the number of closed days within this limit.

Out of the days recognised as holidays by the Dock Labour Boards, eight days in a year may be treated as paid holidays for workers, i.e. workers enjoying these holidays should receive a normal day's wage for each day. The paid holidays should include all the closed days for the Port to be decided by the Dock Labour Board. The workers may choose any other recognised holidays to make up the total number of eight paid holidays in a year, but it should be ensured that the Port does not remain closed for more than six days in a year.

Workers required to work on recognised holidays, which are not treated as paid holidays, should be paid according to the existing practice in each Port and the payment made for the paid holidays or for working on any of the recognised holidays should not count towards the guaranteed minimum wages under Clause 23 of the Scheme.

The administrative cost per hundred registered workers is the highest at Calcutta. The Dock Labour Board, Calcutta, may examine the position with a view to seeing what economies are possible.

The levy should not be fixed at a high percentage merely for building progressively a large reserve, but each Dock Labour Board should have a reasonable financial reserve to provide against any unfavourable position which may arise from a sudden or sharp slump in the business of the Port and consequent depression in the stevedoring industry.

The Calcutta and Madras Dock Labour Boards should also take some steps, as has been done at Bombay, so that losses on account of non-payment of wages and levy by defaulting employers are avoided.

There should be a separate fund for providing amenities and welfare measures for workers. This fund may be called "Workers Welfare Fund" contribution to which should be made by all dock employers. This fund should be maintained and administered by the Dock

Labour Board who should frame suitable rules for this purpose. To start with, part of the levy at present available at each Port should be credited to this fund.

The Government should take suitable action so that the income, property and operations of the Boards are not subject to income tax.

The payment of "Speed Money" by the stevedores and its acceptance by the crane-drivers is, strictly speaking, illegal.

The payment of "Speed Money" should hereafter be stopped, but a suitable increase in the present ordinary daily time-rate wages of the crane men may be made by the Port Authorities simultaneously with bringing them on a piece-rate system of wages.

Payments in any form or manner which are not authorised by the Dock Labour Board or the Port Authorities are nothing less than illegal gratifications. These are immoral and must be stopped with a strong hand. There need however be no objection to entertainment of workers by employers on recognised festive or other occasions approved by the Dock Labour Boards as they foster better employer-employee relations and should, therefore, be encouraged.

The Preamble of the Dock Workers (Regulation of Employment) Act, 1948, is not comprehensive enough inasmuch as it makes no reference to the "efficient performance of dock work". The Preamble of the Act may be amended so as fully to cover the objects of the Scheme.

Irrespective of the feasibility, desirability or otherwise, of doing away with the institution of stevedores, time is not yet opportune to contemplate such a major change in the system of dock working because the working under the present Schemes has not yet completely settled down and it may take some time before it does and is extended fully to cover other dock workers whose nature of employment is still casual. It will not be desirable at this stage to face the Dock Labour Boards with such problems having far-reaching repercussions.

In order that the Dock Labour Boards should be able to exercise proper vigilance and take timely action to maintain productivity of labour and turnaround of ships at satisfactory levels, they should collect necessary data and compile statistics for each month separately under imports and exports pertaining to productivity and turnaround as mentioned in Para. 1137 of the Report.

The Dock Workers Advisory Committee has not yet functioned as regularly and effectively as was expected of it. In order to make the Advisory Committee really effective the Government representatives on the Committee should be of sufficiently high status and the Chairman of the Committee should be a high Government Officer; besides it should include among others the Chairmen of the Dock Labour Boards. Representation may also be given to Export and Import and Shipping

interests. The Advisory Committee should meet as often as necessary, but not less than twice a year.

Whilst the establishment of a National Dock Labour Board here is not yet warranted, the need for the whole-time and effective superintendence from the centre of the working of the Schemes at different Ports and the co-ordination of important measures under the Schemes, so that all the Ports may benefit by the experience of one another, must be fully realised. Unless immediate steps are taken to provide a suitable organisation at the centre, the required superintendence, direction and co-ordination cannot be secured. The need for central co-ordination will be all the more increased when the Port Authorities also take up the question of further decasualisation of the labour employed under them as recommended. The Government of India should depute a high-level officer at the centre to carry out these functions and such other duties in the furtherance of the Schemes as may be found necessary from time to time. This officer should also be the Chairman of the Advisory Committee referred to in Para. 1139.

The term "vessel" for the purpose of the Dock Workers (Regulation of Employment) Act of 1948 and the Schemes thereunder should apply to "all ocean-going vessels of 350 gross registered tons and over".

The Scheme is only a means to an end which is to eliminate casualness of employment and to secure efficient performance of dock work, and there is no point in bringing under the Scheme workers who are already permanently employed on a monthly salary basis.

The present Schemes cover only the employment of dock workers who are employed by stevedores. For others separate Schemes modelled on these Schemes will be necessary.

Foremen and Chargemen working in Bombay Port, who were in the permanent employment of stevedores on June 30, 1955, should not be brought under the Scheme. Of the remainder, those who are hereafter offered permanent employment and are so employed should also not be brought under the Scheme. If all the existing Foremen and Chargemen are so absorbed, no registration should be necessary, but the designations "Foremen" and "Chargemen" may continue to remain in the Schedule. No recruitment in these categories, however, should be permitted so long as stevedores meet their requirements by their permanent employees, irrespective of when they are so appointed. If, however, any Foremen or Chargemen from the existing force remain unemployed permanently, or any of the Foremen or Chargemen, employed permanently by stevedores on or after July 1, 1955, wish to come under the Dock Labour Board with their prior sanction, such Foremen or Chargemen may be recognised by the Dock Labour Board.

The Apprentice Hatch-Foremen or Gunners at Cal-

cutta and Apprentice Foremen at Bombay may be dealt with by the respective Dock Labour Boards in the light of the following suggestions :

(a) The Dock Labour Board should keep a panel of the names of bona fide apprentices who may have been trained, or are under training of any registered employer on or before August 1, 1955.

(b) If any additions to the registers in the categories of Hatch-Foremen or Gunners at Calcutta and Foremen at Bombay are considered necessary, first preference for registration should be given to the apprentices on the panel mentioned under (a) above.

(c) Since the Registration Committee at Calcutta already has under scrutiny some applications for registrations as Hatch-Foremen or Gunners, applicants who had applied before August 1, 1955, and are selected for registration should have preference over the apprentices on the panel.

Shipping Companies should be allowed to employ their permanent staff for tallying and sorting work on their ships. They however cannot employ casual workers. Should they require at any time the services of clerks, other than their own permanent staff, they should ask the stevedores working on their ships to provide them.

At Calcutta, the stevedores should not be allowed to employ for tallying and sorting work any casual worker or any of their permanent staff appointed after March 16, 1955. To meet their and the Shipping Companies' additional requirements they must employ clerks registered with the Dock Labour Board.

In order to meet additional requirements of stevedores, the Dock Labour Board, Calcutta, should register "clerks". The number of clerks to be registered should be determined on the basis of estimated requirements and those clerks who have been working in that capacity in the docks prior to January 1, 1965, will only be eligible for registration. If the number of eligible clerks are more than the number actually required, a selection should be made on the basis of length of service and age, younger men with similar length of service getting preference.

Clerks including Tally and Sorting Clerks should also be included in the Schedules of the Schemes for Bombay and Madras and registered under the Act, but the Shipping Companies should be free to utilise their permanent staff for this work. The stevedores also should be allowed to employ their permanent staff for this work provided they were appointed on or before June 30, 1955.

"Derrick Fitters" and "Riggers" should be included in the Schedule of the Calcutta Scheme and registered by the Dock Labour Board, Calcutta. The employment of "Derrick Fitters" and "Riggers" will be through stevedores from the Dock Labour Board Registers. No other agency will be permitted to employ "Derrick Fitters" and "Riggers".

The Dock Workers (Regulation of Employment) Act, Clause 3, provides for the regulation of employment of dock workers "whether registered or not". The first step should be to prescribe simple Rules under the Act aiming at some "Regulation of Employment" of all dock workers. These Rules may provide for the measures itemised in Para. 1220.

Further regulation of employment of certain categories of dock workers to be decided by the Dock Labour Board from time to time should be secured by adopting a procedure of "listing" the workers in those categories as well as the employers of those workers. Rules may be framed under the Act to regulate the employment of listed workers and they may provide for the measures itemised in Para. 1221.

"Listing" under the Rules mentioned in Para. 1221 may be taken in hand at all the three Ports in respect of the following categories:

- (a) Chipping and Painting Workers,
- (b) Stitchers and Baggers,
- (c) Sale Workers,
- (d) Coal Workers.

Listing in accordance with the procedure detailed in Para. 1221 must hereafter always precede registration under the Act in the case of all new categories which are not included in the existing Schedules or have not already been recommended for registration by the Committee. The Dock Labour Board should obtain the sanction of the Central Government before a new category is included in the Schedule and registered under the Act.

Facilities should be provided by each Dock Labour Board for training existing registered workers in the duties of Winelmen, Signallers, Derrick Fitters or Khalasis, so that trained workers are readily available when permanent vacancies occur or temporary demands arise for these categories.

As an incentive to acquire proficiency in their day-to-day work for all categories of workers the Dock Labour Boards may periodically hold competitions amongst workers and award prizes.

It is the responsibility of the Port Authorities to provide necessary facilities for workers within the Dock area. They should, therefore, incur the capital expenditure in connection with their provision. In regard to the canteens provided and maintained by the Port Authorities, necessary financial arrangements in regard to their maintenance and running, if necessary, may be entered into between the Port Authorities and the Dock Labour Boards.

The Dock Labour Board should take the responsibility for providing the necessary facilities and amenities outside the Dock area. Amenities to be provided by the Dock Labour Board should be planned in advance for a number of years and financial resources under the "Workers Welfare Fund" should be accordingly secured.

The Dock Labour Board may have a special Sub-Committee to work out a detailed programme and to see that it is implemented according to schedule, after it has been approved by the Board. The Sub-Committee may include, if necessary, representatives of listed employers and workers.

The provision of bathing, washing and sanitary facilities should be liberal and need not be limited to what is required under certain statutory obligations.

Canteens should be located at convenient places so that workers do not have to spend much time to go there from their place of work. They should be commodious and sufficient in number so that all the dock workers can be comfortably catered for. They should provide wholesome refreshments and meals at cheap rates.

Drinking water should be available at convenient places on shore and near the call stands. Special arrangements should be made to supply drinking water to the stevedore workers on ships; it would be desirable that the Dock Labour Boards should take the responsibility for these arrangements, which may be made in consultation with the Shipping Companies.

The call stands should be spacious, airy and well lit and should provide sufficient covering and adequate protection against rain and sun. There should be no obstruction of any kind in the circulating area inside the call stand, but benches, drinking water and refreshment arrangements may be provided along the sides. Steps should be taken to see that the call stands do not become places of shelter for outsiders, beggars, vagrants, etc.

The purpose of providing lockers can be substantially served, if necessary, by making arrangements for the custody of the clothes and closed space specially provided for this purpose. Numbered tokens or other means may be used to facilitate identification of the deposited belongings and their owners at the time of their return.

The provision of adequate and suitable housing for workers is necessary, both from the workers' welfare and efficiency points of view and recommends that the Government should consider favourably the requests of the Dock Labour Boards for financial assistance and grant suitable subsidies for housing to this industry also. The repayment of loans may be spread over 15 to 20 years, so that the present employers only do not have to bear the entire burden for a long-term facility.

Well-equipped dispensaries with just a few beds for emergency cases would meet the requirements better than large hospitals. Each Dock Labour Board should provide one or more, as may be necessary, well-equipped dispensaries located near the Docks. They should be adequately staffed with doctors, nurses and other attendants and have a few beds for emergency cases. In addition, First-Aid equipment should also be provided at convenient and readily accessible places and the Dock

Labour Boards in conjunction with the Port Authorities should arrange for holding First-Aid classes to train workers and the supervisory staff in First-Aid. The names of those who pass the First-Aid test should be prominently exhibited so that they may be called upon for aid whenever necessary.

Every new worker selected for registration should undergo, free of charge, a medical examination for physical fitness before he is registered and employed.

The Dock Labour Boards should take steps to ensure that employers as well as workers conform to the requirements of the Dock Labourers Regulations, 1948, and that protective equipment suggested and approved by the Dock Safety Inspectors is provided and used.

The Dock Labour Boards should take steps to provide facilities for sports, games, cultural activities and other healthy entertainments which should make for close contacts between the employers and the employees.

At Calcutta, liquor shops should not be allowed within a prescribed distance from the Docks and the Central Government may request the Government of West Bengal to give this matter their attention and take suitable action in consultation with the Port Authorities.

The Act should be suitably amended so that Rules can be framed under this Act for the regulation of employment of dock workers who are not registered under any Scheme, or for any other purpose.

The Dock Labour Boards and the Government must ensure that failures to carry out the obligations under the Scheme are not allowed to occur with impunity but are immediately and effectively dealt with. Any individual or group found to be persistently responsible for breaches of the condition of the Scheme and disrupting the working in the Port cannot but be regarded as deliberately working against the objectives of the Scheme and not interested in the welfare of the industry.

PULSE MILLING COMMITTEE, 1955—REPORT

Delhi, Manager of Publications, 1958. 46-48p. (Bound with Rice Milling Committee)

Chairman : Shri C. P. Karunakara Menon.
Members : Shri G. Parameswaran Pillai; Shri I. U. Lakhia; Shri Jhaverbhai Patel; Shri Raojibhai N. Patel; Mrs. P. Johri; Dr. D. V. Karmarkar.
Secretary : Shri N. M. Bardhan.

APPOINTMENT

The Pulse Milling Committee was constituted under the Ministry of Food and Agriculture vide their Resolution No. Py.I-608(5)54, dated January 8, 1955.

TERMS OF REFERENCE

(i) To examine the working of the different types of pulse milling now in vogue in the country from all relevant aspects such as technical, nutritional, consumer preference, economic and employment; and

(ii) To make recommendations as to the future policy that should be adopted and to indicate the administrative, financial and legislative measures which may be needed on the part of the Central and State Governments to give effect to them.

CONTENTS

Introduction; Appointment; Terms of Reference; Pulse Milling; Summary of Recommendations.

RECOMMENDATIONS

Licensing of power-driven *dal* mills should be immediately introduced in all States.

No licences for new *dal* mills should be granted.

No additional capacity should be allowed to existing *dal* mills.

No *dal* mills should be permitted to work for more than six hours a day, the object being that the existing over-all production of the *dal* mills should not only not be increased but should be decreased.

A cess at the rate of 6 annas per maund of whole pulses (not *dal*) milled should be imposed on all *dal* mills and the proceeds of the cess should be utilised for organising pulse milling by hand chakkis, for research to improve the hand chakkis, and for a subsidy to *dal* producers by hand chakkis. Necessary legislation should be made for imposition of a cess on *dal* mills.

A subsidy of 8 annas per maund of whole pulse milled by hand chakkis should be given through recognised hand chakkis centres organised as Cooperative Societies or by recognised institutions and social workers certified by the All-India Khadi and Village Industries Commission, wherever the price of hand-chakki *dal* is higher than *dal* milled by *dal* mills. The subsidy should be for a specified period of three years, at the end of which the position should be reviewed by the Government. Individuals

engaged in producing hand-chakki dal and certified by the State Khadi and Village Industries Commission may be allowed concessions in the form of easy credit and implements at subsidised rates.

Dal milled by hand chakkis should be exempted from sales tax in States where dal is subject to sales tax. The existing rules should be amended accordingly.

The State Governments should purchase dal produced only by hand chakkis preferably from Government subsidised hand-chakki centres, where they exist, for their requirements for Jails, Hospitals, Government Hostels, the Railways, the Army, the Police, etc. The State Governments should issue a directive to all Government aided and controlled concerns, institutions and canteens (such as railway canteens) to purchase dal produced only

by hand chakkis.

Each State Government should draw up a three-year programme for speedy organisation of production of dal by hand chakkis and replacement of all dal mills within that period. For that purpose each State Government should each year formulate a programme for developing the hand-chakki industry and correspondingly reducing the production by dal mills.

The programme of the State Governments for speedy organisation of pulse milling with hand chakkis should proceed on a co-operative basis.

Research should be undertaken with financial assistance from the Government evolving simple and better type hand chakkis with a view to increasing their output and at the same time making it easier to handle.

EDUCATION COMMITTEE FOR THE ANDAMAN AND NICOBAR ISLANDS 1955—REPORT

New Delhi, Ministry of Education, 1956. 107p.

Chairman : Shri A. N. Basu.

Members : Dr. K. D. Ghosh; Shri D. S. Achtni; Shri A. C. Erickson.

Member-

Secretary : Pandit Sham Narayan.

APPOINTMENT

The Government of India, Ministry of Education, vide their Order No. F. 2-16/54-H.3, dated February 22, 1955, appointed an Education Committee for the Andaman and Nicobar Islands.

TERMS OF REFERENCE

The terms of reference of the Committee were as follows:

(a) To study the existing educational set-up in these islands; and

(b) To recommend plans for the improvement and reorganisation of the education system.

In view of the special conditions prevailing in these Islands, it was decided that the scope for investigation of the Committee might be, if necessary, widened.

CONTENTS

Introductory; Background of the Problems of Education; Geography and History of the Islands; Primary Education; A general Picture; Middle School Education; Recommendations for opening new schools; Compulsory Primary Education; Senior Basic Schools; High

School Education; Vocational Education; Administration; Teachers, their Recruitment and Training; Proposals for better Service Conditions; Training School; Its Working and Staffing; Medium of Instruction, Primary Stage, High School Stage, the Lingua Franca of the Islands, Script, the place of Hindi, the Nicobar, Background, the Present Set-up, the Middle School, Hostels for High School Students, Language; Social Education, its Importance under the Present Conditions, a Scheme for Social Education; Finance; Conclusions; Summary of Recommendations; Appendices from I to IX.

RECOMMENDATIONS—SUMMARY

I Primary Education

At least 19 Basic Trained Teachers (14+5) should be immediately appointed, one for each of the Primary Schools (Grade Rs. 68-4-120-5-170).

These teachers should be able to teach Hindi as well as other subjects.

Four sets of peripatetic teachers (12 teachers) should be appointed for Drawing, Music and Physical Education for the three Zones, South Andamans, Middle and North Andamans and Nicobar Islands (Grade Rs. 68-4-120-5-170).

Co-operation of local women should be sought in teaching, sewing and knitting to girls in schools, if need be, on small honoraria.

The peripatetic teachers are to be under the Educa-

tion Officer and should work in collaboration with the two Supervisors in these areas.

Each school should have at least three rooms.

As an immediate measure, bamboo partitions should be set up in big rooms for purposes of effective teaching.

To remove the dearth of textbooks, etc., the Co-operative Book Depot at the High School should be the agency for ordering textbooks and educational appliances for Primary and Basic Schools.

Slates should be replaced by wooden takhtis which can be made inexpensively in these areas.

Hand-made mats (made by children) and flat wooden writing desks, according to specifications given, should replace high benches and desks.

The blackboards should get a yearly coat of paint, preferably made in the school itself according to the formula given.

There should be a morning assembly in each school for non-denominational prayers, community singing, reading from sacred books and talks by the Headmaster and other teachers.

There should be systematic training in singing the National Anthem (which the pupils must understand) correctly, as also a number of selected songs including school songs.

The school walls should be decorated with pictures and children's drawings.

There should be a school museum, housing children's collection of shells, pebbles, butterflies and other objects of interest.

Every child should have the following subjects:

Mother tongue, Hindi, Social Studies (History, Geography and Civics), Arithmetic, Music, Drawing, Craft, Health and Physical Education and Gardening.

A detailed syllabus in each subject should be provided by the Education Department.

To enable parents to have children's help and to give some relief to teachers, hours of school work should be from 11 a.m. to 4.30 p.m., the younger children being let off at 3 p.m.

The Paddy Vacation may be extended by a fortnight.

Every school be given an initial capital grant of at least Rs. 200 to start the nucleus of a library.

The Education Department should receive a capital grant of Rs. 2,000 to start a Central Library at Port Blair for circulating books to different schools.

There being no newspapers in these Islands, the Education Department should publish a Hindi bi-weekly edition of the *Daily Press Telegrams*, brought out by the Administration and send it regularly to the schools.

There should be a School Medical Service, started with the help of the Public Health Authorities. Arrangements should also be made for cheap but nourishing midday tiffin.

All new appointments should be of Matriculate

Trained Teachers. The existing teachers should be required to add to their educational qualifications and get themselves trained within a period of five years.

Schools should be started in schoolless areas as indicated and the Primary Department of the High School be split into four or five schools to serve Port Blair itself.

All the 19 Primary Schools should be converted into proper Basic Schools by 1957-58, according to the time schedule given in the Report.

One of the following Crafts is to be introduced in the school with at least two hours' practice: Cane and Bamboo work, Gardening, Carpentry and Spinning.

Free compulsory Primary Education should be introduced but before it is actually enforced, the schools should be strengthened by provision of school places and appointment of Trained Teachers.

Three new Senior Basic Schools (Middle Schools) should be started at Chouldari, Tusonabad and Rangat.

Cheap hostels should be attached to the Senior Basic (Middle) schools, children being allowed to bring their own rations.

In the Senior Basic (Middle) schools, crafts suggested for the Junior Basic schools should be continued, spinning being followed by weaving and carpentry being given a forest bias.

Stress should be laid in the Senior Basic (Middle) schools on group games, mass drill and Scouting, Guiding and Bratachari.

Each of the Senior Basic (Middle) schools must have at least two additional teachers, the Headmaster being a trained graduate.

Each Senior Basic (Middle) school must have at least five rooms.

There should be two Supervisors, for the present, under the Education Officer for purposes of inspection and guidance.

The Education Department should organise from time to time inter-school activities of various types such as Sports, Debates, Music and Craft Work competitions.

Teachers should be brought together from time to time for short week-end courses and for discussing problems connected with their work.

Educational exhibitions and excursions should be regularly organised by the Education Department.

II High School Education

The present mixed High School may be converted into a Higher Secondary Multipurpose School for boys and a Senior Basic School for girls may be opened at a separate place.

Besides M.A.B.T.'s required for the Multipurpose School, the following additional staff should be appointed: (1) Two trained and qualified teachers, (2) One Sanskrit teacher, (3) Two Drawing teachers, (4) One Domestic Science teacher for girls school and (5) Two

Physical Instructors for both the schools—one for each, one for boys and one for girls, in the grade of Rs. 120-300.

Unqualified and underqualified teachers be replaced by qualified staff.

Furniture should be replaced by desks and chairs, black boards may be renovated; maps, charts, models, strip projector for the teaching of geography be provided: library should be completely overhauled—Rs. 5,000 be given as grant.

Suitable periodicals, magazines, journals be submitted for the use of teachers and students.

Science laboratory should be properly equipped and be used for both boys and girls. A substantial amount of Rs. 5,000 be spent in the first instance and Rs. 1,000 be allowed annually.

Schools should have their own playgrounds. Trained Physical Instructors in the grade of Rs. 120-300 be appointed for physical instruction.

Excursions and tours should be organised.

Students be encouraged to grow their school garden.

Medical inspection be done twice a year and Rs. 2,000 a year be earmarked for remuneration to the doctors.

The question of affiliation be decided once for all.

III Vocational Education

A trade school may be opened either near the Marine Dockyard or at the Chatham Saw Mills. Chatham Saw Mills have the advantage of Staff Training School, while the Marine Dockyard have got much of other facilities. The age limit for admission should be 14 plus.

Selection of the candidates, if possible, be made by competition.

No fee may be charged from the students except a nominal admission fee of Rs. 2 and caution money of Rs. 15.

The students will receive instruction in Elementary Mathematics, Technical Drawing, Elementary English, General Knowledge and also Workshop Practice. Total periods will be 45 per week of 40 minutes' duration each.

During the first year, all training will have Basic all-round training in General Workshop Practice and Theory and in the second year they will specialise in either Mechanics or Carpentry.

There will be an examination at the end of the first year and another examination at the end of the second year. The successful candidates may be employed as apprentices in the Government Departments, particularly in Forest Department and Marine Dockyard with a stipend of Rs. 30 or Rs. 40.

The students of the Trade School may be housed in the Government hostel.

The following posts may be created.

(a) A Headmaster in the grade of Rs. 250-10-300-20-400-E.B.-25-500.

(b) One Assistant Teacher in the grade of Rs. 120-8-200-E.B.-10-300.

This Institute will produce the following technicians: Carpenters, Fitters, Smiths, Mechanics, Welders, Moulders, etc.

IV Administration

The present system of administration of education is centralised in the hands of the Chief Commissioner, assisted by an Advisory Committee for Education and a High School Managing Committee. The Secretary of these bodies, consisting of non-official and official members, is generally an officer of some Department other than Education. The Committee recommend the creation of the following posts:

(1) Education Officer, Grade Rs. 400-25-500-30-800, equivalent to the rank of a District Inspector of Schools in Delhi.

(2) Two Supervisors, one for Maya Bandar and Middle Islands, the other for Port Blair and Nicobar group of Islands, Grade Rs. 180-10-320-E.B.-350, equivalent to the grade of an A.D.I. in Delhi.

(3) One steno-typist, one U.D.C., three Lower Grade clerks and three peons, for the office establishment of the Education Officer and the Supervisors.

The functions of these officers will be as follows:

(a) Education Officer

(i) To work as the Head of the Department of Education under the Chief Commissioner.

(ii) Conversion of the existing High School for boys into a Multipurpose School, and the starting of a new Higher Secondary Multipurpose School for girls.

(iii) To look after Social Education.

(iv) To convert the existing Primary Schools into Basic Schools.

(v) To direct, supervise and reorganise the existing schools.

(vi) To manage, direct and supervise Technical Schools in the Islands.

(vii) To arrange for the training of teachers, and the recruitment of suitable teachers.

(b) Supervisors

(i) To assist the Education Officer in the direction, supervision and organisation of Basic Schools. One of them will be for the Andamans and the other for Nicobar Islands.

V Medium Of Instruction

At the Primary stage, mother tongue of the child should be the medium of instruction. Hindi should be begun from Class III in the Andamans and Class II in the Nicobars schools, where the mother tongue is not Hindi.

In the Secondary stage, Hindi should be the medium of instruction. Urdu may for some time continue side by side.

Hindi is the regional language in the Andamans; but there are linguistic minorities.

Devanagari script may be given to dialects in Nancowry group and also to Car Nicobar dialect.

Improvement in the teaching of Hindi, or other subjects through Hindi may be made by the appointment of qualified teachers.

VI Teachers

At the moment, all the schools are staffed generally by untrained and unqualified teachers, but it is necessary to make arrangements for their training.

Untrained teachers in the High Schools should be sent to Training Colleges in India for their training. They should be considered on duty during the period of training and should also be given passage money and a small allowance in addition to their salaries on the lines of Tripura and Manipur States.

A school for the training of Primary School teachers may be opened in Andamans and the following posts be created:

1. Headmaster: Trained Graduate in the grade of Rs. 250-10-300-20-400-E.B.-25-500.
2. One Instructor: Matric-Basic Trained with five years' teaching experience, grade Rs. 60-4-120-E.B.-5-170.
3. One qualified Craft Instructor, grade Rs. 60-4-120-5-170.
4. One Peon.

The Principal and some of the teachers on the staff of the Higher Secondary School may also assist in the teaching work.

The Director of Education should direct, guide and assist in the training at the institution. This training institution will be an evening institution and housed in the building of the Higher Secondary School for boys.

In the first year, six untrained teachers from the schools and six fresh Matriculates may be admitted. Next year, the Trained Teachers may be posted in schools and another similar batch will be trained. In four years, all the untrained teachers in the Andamans will have received training and would provide sufficient number of trained teachers for schools. This School, then, should be transferred to Nicobar Islands. This school is expected to finish its job in five years. Only those teachers should be admitted to the school who have passed the Middle School Examination. Others should pass the Middle School Examination before being admitted to the School. All these Middle Passed Teachers should after training be required to pass the Matriculation Examination in a reasonable time. Graduate Trained Teachers should be obtained on deputation from the

mainland through the good offices of the Ministry of Education.

To attract teachers the following action should be taken:

(a) Existing grades should be revised and brought in line with those prevailing in Delhi. They should continue to receive the usual Andaman allowance.

(b) The existing service conditions may be revised and teachers may be allowed to visit their homes during long vacations with free passage to and from their homes. If a teacher is detained on duty during vacation this should be confirmed, as early as possible.

VII Social Education

In view of the large number of illiterate mazdoors, apart from the general adult illiterate population, the employees of the Forest Department and the Saw Mills need an urgent scheme for Social Education in the Islands. This work should be taken in hand immediately.

A Department of Social Education with the following staff may be created under the supervision of the Social Education Officer (Grade Rs. 250-10-300-20-400-E.B.-25-500). He should be a person trained from centres like Sewa Gram or Shanti Niketan.

1. Six Social Workers in the grade of Rs. 68-4-120-E.B.-5-170. They should be at least Matric trained. Two of them should be good singers and actors, capable of organising and training music and dramatic parties, etc. Two Social Workers should be able to train pupil-workers, selected from amongst the mazdoors themselves in the art of imparting instruction in three R's to adults. The remaining two should be adept in Audio-visual Aids and should be able to work a moving library. These Social Workers should preferably be selected from the persons trained in a Janta College.

2. One Senior Operator in the grade of Rs. 80-5-120-E.B.-210/220.

3. Night schools may be organised for labourers in the Forest Labour Camps. The building for the purpose which should serve as a Community Centre may be provided by the Forest Department. At several places the school buildings may be utilised for this purpose.

4. One Social Worker may be selected from amongst the labourers from each of the Camps and may be given a sum of Rs. 30 per mensem as remuneration or honorarium.

After training local people in the Andamans the Social Education Officer may shift to Car Nicobar for a year with four of his Social Workers to organise evening classes or Community Centres in those Islands.

This work of training local people and organising Community Centres, etc., should be completed in three years' time. Co-operation of the Village Panchayats and the Headmen in the Nicobar villages may be obtained.

A 16 mm. projector may also be supplied, if it is not already available.

All literature, books and charts for the purpose should be supplied by the Education Ministry to the Social Education Officer.

VIII Nicobar

The existing Middle School at Mus may be shifted to Big Lapati.

In 1956, Class VIII may be added to this. There is no need for further extension or opening of new schools in the near future in the Car Nieobar.

At other places also the existing schools may be developed wherever number justifies. The subject of fine arts should be introduced in the Government schools. People here are very good musicians and should be given benefits of learning Guitar, Banjo and Violin.

The Craft suitable for the schools, as mat-making or coir-making, etc., should be introduced.

The Staff is highly unqualified, and arrangements for

the training of the unqualified staff may be made as mentioned in the chapter on Teachers. Hindi should be the medium of instruction at the High School stage. In the Primary classes Hindi should be introduced in Class II, after which the medium of instruction should be Hindi.

The children sit on the bare floor. Arrangements should be made for mats to seat them. These mats, if possible, should be woven by womenfolk in homes for their children. The Government should supply small wooden tables of reasonable size to serve as writing desks.

A hostel may be started for the students of distant villages to get education in the Middle School, proposed to be shifted to Big Lapati. For High School education the students may be sent back to the Andamans and a separate hostel may be opened for the Nicobarese students in view of their tastes and habits of food and way of life. Bishop Richardson's proposal for a hostel may be encouraged.

LOWER DAMODAR INVESTIGATION COMMITTEE, 1955—REPORT Calcutta, Domodar Valley Corporation, 1957. 2 vols.

Chairman : Shri G. R. Garg.

Members : Dr. N. K. Bose; Shri G. B. Mondal; Shri S. P. Sarathy; Shri D. Mookerjea; Shri A. L. Dias.

Secretary : Shri H. J. Ajwani (replaced by Shri N. S. Iyengar).

APPOINTMENT

The Damodar Valley Corporation vide Memorandum No.WI-G/21-1880, dated February 24, 1955, set up a Committee to examine the possible effects of the D.V.C. dams on the lower reaches of the Damodar River and the Rupnarain.

TERMS OF REFERENCE

(a) To examine in detail the available data and suggest what further information will be required with respect to the regime of the Lower Damodar and the Rupnarain;

(b) To assess the possible effects of the DVC dams on the lower reaches of the Damodar river and the Rupnarain;

(c) To suggest what steps, if any, should be taken for preventing deterioration of the Lower Damodar and the Rupnarain; and

(d) To make such other recommendations pertinent to the subject which they may consider necessary.

CONTENTS

Volume I—Introduction; Examination of the available data and suggestions regarding further information to be collected; Existing (pre-dam) condition of the Lower Reaches of the Damodar and the Rupnarain; Possible effects of the D.V.C. Dams on the Lower Reaches of the Damodar and the Rupnarain; Suggestions regarding the steps to be taken for preventing deterioration of the Lower Damodar and the Rupnarain; Plates I and II.
Volume II—Appendices.

RECOMMENDATIONS

Suggestions regarding the steps to be taken for preventing deterioration of the Lower Damodar and the Rupnarain:

(1) Encroachment on the river by private interests must be prevented by suitable legislative and other measures.

(2) The growth of vegetation in the bed of the river and also along the banks should be carefully watched and suitable action taken so as to cause minimum obstruction to the flood flow, frequency of which would be

definitely less than what it is now. Controlled cultivation above normal high flood level and in *chars* will be helpful in restricting jungle growth.

(3) Concentrated flushing doses should be occasionally released down the river in the interest of the conservancy of the river channels. Proper studies should be made while releasing the flushing doses as to the effect of such operation on the regime of the river as well as on the various interests on the banks. Such studies would be of valuable guidance for future operation of the reservoirs.

(4) In fixing the priority of water uses the conservancy of the river channel itself must not be ignored and should be given due consideration along with other uses of water, viz. irrigation and generation of power. The operation of the reservoirs should be flexible enough in the initial stages, so that a proper and careful study can be made and suitable adjustments in the plan of operation are introduced for the benefit of all concerned.

(5) Some suitable method of supply of irrigation water for the trans-Damodar area may be investigated.

(6) The problem of drainage of local area in the Lower Valley should be separately studied and investigated and suitable action for drainage of these areas should be taken up by the appropriate authorities.

(7) Detailed investigations should be carried out to effect improvement over the present condition of the Amta channel. Care should, however, be taken to ensure that it does not affect the river Rupnarain adversely.

(8) Immediate and suitable steps should be taken for carrying out systematic hydrological investigations and observation in this area.

(9) It is well-known that several problems arise in the Lower Reaches of the river after construction of the dams. In the present case the problems are further complicated by the tides in the Lower Reaches. It is, therefore, difficult to forecast the actual problems that would crop up in this area after the completion of the Damodar Valley Project. It would, therefore, be necessary to have a proper control so as to co-ordinate the activities of the different authorities concerned.

We suggest that a Board to be called the "Lower Damodar Conservancy Board" be set up with the representatives of the Government of West Bengal, Calcutta Port Commissioners and the Damodar Valley Corporation. The functions of this Board will be:

(a) to formulate the necessary hydrological and engineering investigations that will have to be carried out to study the effect of operation of dams especially the releases during the floods;

(b) to suggest alternative plans of operation if any; and

(c) to formulate schemes for improvement of channels and any local area in the Lower Valley.

It is necessary to have a proper unified development of the entire Lower Valley as a whole instead of solution of individual problems for local and short-term benefits.

AD HOC COMMITTEE FOR COIR ROPE, 1955—REPORT

Ernakulam, The Coir Board, 1956. 11p.+ixp.

Convenor : C. T. Jacob.

Members : Shri P. K. Dewar; Shri B. V. Abdulla Koya; Shri S. C. Roy; Shri B. M. Peter; Shri A. M. Barbhaya; Shri C. E. Menon.

APPOINTMENT

The Ad Hoc Committee for Coir Rope is an off-shoot and part of the Ad Hoc Committee for Coir Products. Paragraph 37 of the Report of the Ad Hoc Committee for Coir Products reads as follows:

"This Committee should have examined the question of manufacture of coir rope also as this forms one of the 'coir products'. But because manufacturers of rope were not adequately represented on the Ad Hoc Committee when it was originally constituted, the questionnaire did not contain any questions relating to the

production of coir rope. Since then, Shri B. M. Peter and Shri C. E. Menon were added to the Ad Hoc Committee, but it was unfortunately too late to include questions relating to coir rope. In view of this and with a view not to delay the report of this Committee, we recommend to the Coir Board that a smaller Ad Hoc Committee be appointed to consider the production of coir rope and when that Committee submits its Report, it may be added on to this Report to form one complete Report on Coir Products."

In accordance with the above recommendation which was accepted by the Coir Board at its meeting held on March 25, 1955, this Ad Hoc Committee was constituted.

TERMS OF REFERENCE

To consider the production of coir rope.

CONTENTS

Introduction; Production; Demand for Coir Rope; Prospects for Development; Factors; Standardisation; General Recommendations; Conclusions and Recommendations; Appendices I to V.

RECOMMENDATIONS

(1) Although accurate statistics are not available, it can be estimated that the total production of coir rope in India amounts to about 14,100 tons. Of this, internal consumption may be estimated at 10,650 tons and exports to foreign countries at 3,450 tons.

(2) The principal buyers of coir cordage and rope are the Middle East countries, Turkey and Malaya, and a tendency is visible of declining exports to other countries. During the War, there was an acute shortage of other hard fibres which were traditionally used in the manufacture of cordage and rope, e.g. Manila, Hemp and Sisal. Since the War, Sisal production has increased in Africa, and likewise more Manila and Hemp have been released for civil consumption in Indonesia and the Far East. It is therefore reasonable to assume that the off-take by these countries, particularly of coir cordage and rope, has declined because of displacement by other fibres.

(3) It is important to ensure supplies of yarn of a uniform quality to the manufacturers. The Committee is in entire agreement with the recommendations made by the Ad Hoc Committee for Coir Yarn on this subject.

(4) Competition for coir rope is mainly from Aloë, Manila and Hemp ropes. The Committee recommends that a technical study should be made by the Technological Department of the Coir Board of the tensile strength and other properties of the coir fibre as compared with other industrial fibres used for rope manufacture and of the possibilities of improving the quality of coir rope so as to increase its usefulness and enlarge its market.

(5) Coir yarn prices in India are controlled by many factors and it is by no means possible to make the raw material available to products of coir cordage and rope

at lower prices unless production methods are improved, especially in Malabar, thereby increasing production and reducing production costs.

(6) A reduction in production costs can also be achieved by improving the efficiency of the rather crude equipments now used by roperies in the Malabar Coast, not by mechanisation, but by technological improvements to the equipment for which the necessary technical advice should be rendered by the Coir Board's technical staff.

(7) There are no factors in the rope manufacturing industry, but there are merchants who play a useful role in the industry as at present organised.

(8) The Committee feels that it is desirable to have specifications laid down for coir cordage and rope, which will eventually be helpful to the progress of the industry. TDC:14 of the Indian Standards Institution is now engaged in this work. For the present these specifications need not be enforced, but they should be given adequate publicity.

(9) With a view to enabling the Coir Board to maintain fuller statistical information regarding production and marketing of coir rope, the Committee recommends:

(a) that no exports of coir rope shall be made except under a licence issued by the Coir Board; the licence may however be issued freely;

(b) that coir rope be given a separate heading in the accounts of the sea-borne trade of India—both foreign and coastwise;

(c) that statistics of rail-borne trade in coir rope be collected by the Coir Board;

(d) that in the event of the Coir Board sending a delegation to foreign countries, that delegation be asked to collect full information regarding the extent of production of coir rope in foreign countries and the methods of manufacture adopted.

(10) The Committee also recommends that any delegation sent out by the Coir Board inquire into the reasons why our exports to certain countries have declined and also into the possibilities of our reviving such exports.

OILSEEDS CRUSHING INDUSTRY INQUIRY COMMITTEE, 1955—REPORT

New Delhi, Ministry of Food and Agriculture, 1956. 111p.

Chairman : Shri P. A. Gopalkrishnan (resigned, replaced by Shri T. C. Puri).
Members : Shri R. L. Mehta; Shri Ratilal M. Gandhi;

Shri Jhaverbhai Patel; Shri Satish Chandra Das Gupta; Mrs. Prema Johari; Dr. K. S. Murti.

Secretary : Shri F. C. Gera.

APPOINTMENT

The Oilseeds Crushing Industry Inquiry Committee was constituted under the Ministry of Food and Agriculture vide their Resolution No. F. 5-54/ 54-Com. I, dated April 1, 1955.

TERMS OF REFERENCE

To carry out a rapid survey of the state of Oilseeds Crushing Industry (crushing both by mills and by village ghanis) in the country and to recommend the lines on which this industry should be developed in future, in particular, to examine and report:

(a) whether it is necessary to increase or to reduce the existing oilseeds crushing capacity of mills in the country;

(b) whether it would be desirable to reserve any particular oilseeds for crushing by the village ghani only having regard to the effect of such reservation on the efficiency of production of oil and its nutritional value and having regard further to its effect on employment, supply of oil to consuming industries and exports; and

(c) whether it is necessary to give any assistance to the village oil-crushing industry and, if so, in what form.

CONTENTS

Introduction; Efficiency of Mills and Ghanis; Nutritional Value of Oils and Oilcakes produced by Mills and Ghanis; Industries dependent upon vegetable oils; Employment possibilities of the Oilseeds Crushing Industry; Reservation of Edible Oilseeds for Ghanis Industry; Exports of Oils and Oilseeds; Cess on Oils and Oilseeds; Assistance to the Village Oilseeds Crushing Industry; Organisation for control of Oilseeds Crushing Industry; Minor Oilseeds; Development of Cottonseed Crushing Industry; Acknowledgements; Summary of Conclusions and Recommendations; Appendices.

CONCLUSIONS AND RECOMMENDATIONS—SUMMARY

There is a marked preference in the country for the ghani oil over the mill oil so far as domestic consumption is concerned. Ghani oil is more palatable than mill oil and according to popular opinion, it is slightly more nutritious than mill oil.

There is every justification for ensuring that ghani oil unadulterated with mill oil is made available to the consumers for domestic consumption in the quantities required by them.

Filtration of ghani oil should be encouraged on a large scale.

In the conditions prevailing in India where malnutrition of animals is the rule and their balanced feeding an

exception, it is important that they are fed on oilcakes containing a higher percentage of oil.

One result of crushing of oilseeds by ghani is that the cake remains in the village and is fed to the cattle.

Ghani-pressed cake undergoes quicker spoilage but ghani cakes produced in small quantities by village oilmen are easily sold and there is little danger of the ghani cake being spoiled by long storage for the reason that this will not be stored for a long time.

Vanaspati industry, the paints and varnishes industry and the soap factories may continue to draw their requirements of vegetable oil from the existing sources, namely, vegetable oil mills.

If the pharmaceutical industry needs any quantity of vegetable oils from the mill sector, there is no objection to that sector continuing to meet the requirements of that industry.

Ghani has superior employment possibilities compared to the mills and there is a case for giving every possible encouragement to it even if it means a slight loss of the total vegetable oil resources of the country.

The existing number of ghanis will not be able to cope with the crushing of all the edible oilseeds produced in the country. The suggestion to reserve all edible oilseeds for crushing by ghanis is, therefore, impracticable.

While encouragement should be given to the ghanis, oil milling industry is also entitled to a place in India's economy.

Installed crushing capacity of the milling industry may be allowed to operate in respect of all oilseeds except sesamum.

Regarding sesamum, the mill sector may continue to supply sesamum oil for the requirements of the vanaspati and other industries and for exports. All requirements of sesamum oil for domestic consumption should be met by the ghanis.

No more power-driven mills should be set up in the country.

It is not desirable to ban the export of oils and oilseeds. If it is necessary to export small quantities of oils and oilseeds to maintain prices in the country, these should be allowed.

It is not desirable to permit export of large quantities of oilcakes, but there is no objection to small quantities of de-oiled cakes produced by mills being allowed to be exported after allowing for the needs of the country.

There should only be an excise duty on mill oil and this excise should enter the General Revenues.

It would not be desirable to levy a cess on the oil mills for utilising the proceeds for the benefit of the ghani. Any money required for the benefit of the village industry should come from the General Revenues and this need not be equal to the amount of income from the excise duty. The expenditure on the village industry should be according to its requirements.

At least 10,000 improved ghanis should be supplied annually on a subsidized basis to the village oilmen to replace the old-type ghanis.

Supply of improved-type ghanis should continue to be subsidized at Rs. 150 per ghani.

Research should be arranged at a few selected centres for effecting improvements in the Wardha Ghani.

It is desirable to have a network of oilmen's co-operative societies whose chief duty should be to ensure a continuous supply of raw material to the oilmen and to buy all the oils and oilcakes produced by them, as only a rapid sale of the oils and oilcakes could keep the ghanis going. If the co-operative societies do not have sufficient finances to discharge this responsibility, it would be desirable to consider the possibility of setting up marketing organisations in each State for doing this work.

The Government should remove the difficulties experienced by the oilmen and Co-operative Societies in arranging finances. Mainly due to the oilseeds' prices being subject to fluctuations, credit is not easy to arrange and the State should therefore guarantee the losses to enable the oilmen to hold out at the time of fall in prices. Whatever payment the Government may have to make on this account should be treated as a loan to the Co-operative Societies. In the usual course, the loss of one season could be made up by the profits of the next. In exceptional cases, the loan may be written off.

The production subsidy of Rs. 2, 8 an. per maund of oil produced by the ghanis should be reduced to Re. 1, 14 an. per maund.

The Government's requirements of vegetable oils for use in hospitals, jails, police establishments, messes, hostels, etc., should be met by the purchase of ghani oil only.

Purchases of oilcakes required for immediate consumption in Government institutions should be confined to ghani cakes only. The keeping quality of ghani cakes is inferior to the keeping quality of mill cakes and it would not, therefore, be proper to make the use of ghani cakes compulsory where the cakes have to be stored for long periods.

The Railways should sanction a concessional rate of freight for the movement of ghanis and allied equipment.

There is need for technical advice being given to the mill sector regarding the type of machinery to be used, the manner of maintaining it, the treatment of seed before crushing, the storage of oilseeds, etc. The duty of giving this advice could be entrusted to the Indian Central Oilseeds Committee.

There is need for Governmental measures to ensure healthful conditions of work for the workmen employed in the mills.

Village-level workers in the National Extension Service Blocks and the Community Project Areas should be told to popularise the collection of minor oilseeds where they grow in natural state so that their exploitation may be a source of income to the rural population and may incidentally add to the oil resources of this country.

The Indian Central Oilseeds Committee is engaged in a survey of minor oilseeds in the country. After this survey is completed, the possibility of making arrangements for regular collection and publication of statistics of production of minor oilseeds may be examined.

The country should go slow in the matter of development of cottonseed crushing by mills. During the Second Five Year Plan the quantity of cottonseed crushed in the country should not exceed 20% of the total production of cottonseed.

There is no reason why any special concession should be given to the cottonseed industry. There is a real danger that if direct or indirect subsidies are given to this industry, the consequential large-scale diversion of cottonseed from Indian villages to the urban areas for crushing by mills might have a dangerous effect on the health of the Indian cattle. However, licences for import of machinery for crushing cottonseed might be given freely up to the limit of crushing capacity indicated above.

Hand presses used for the crushing of certain oilseeds involve a considerable amount of cruelty to the workmen and these presses may be replaced by power-driven mills with the crushing capacity equal to that of the presses. If any financial assistance in the shape of loans and grants to the owners of these presses is necessary, this should be given by the Government.

There is need for separate Central legislation to carry out the recommendations of the Oilseeds Crushing Industry Inquiry Committee. This legislation should provide for the creation of a statutory office of a Controller of the Vegetable Oilseeds Crushing Industry who should be entrusted with the duty of seeing that no new mills are set up for crushing oilseeds, that the existing installed capacity of the mills is not exceeded and that the crushing of sesamum by the mills is not undertaken except for requirements of exports and industries using vegetable oils as a raw material. There may be Regional Officers working under the Controller of the Vegetable Oilseeds Crushing Industry in the various States who can be delegated suitable powers.

PUBLIC SERVICES (QUALIFICATIONS FOR RECRUITMENT) COMMITTEE, 1955—REPORT

Delhi, Manager of Publications, 1956. 34p.

Chairman : Dr. A. Ramaswami Mudaliar.

Members : Dr. C. P. Ramaswamy Aiyar; Dr. Amar Nath Jha (died); Dr. J. C. Ghosh; Dr. Sushila Nayar; Shri N. K. Sidhanta; Prof. Humayun Kabir; Shri K. P. Mushran; Shri A. K. Roy.

Secretary : Shri R. C. Dutt.

APPOINTMENT

The Public Services (Qualifications for Recruitment) Committee was constituted under the Ministry of Education vide their Resolution No. F. 23-49/54. A. 1, dated April 16, 1955, to examine the need for a university degree as a prerequisite qualification for the public services.

TERMS OF REFERENCE

(i) To examine the question as to how far and at what levels the possession of a university degree is necessary for recruitment to public services.

(ii) To consider the type of tests which should be instituted to assess the relative merits of candidates in an objective manner in the absence of a university degree.

(iii) To consider measures to ensure that the number of candidates competing for posts and services under the Government is not wastefully large.

CONTENTS

Introduction; the Problem; the Problem Analysed; Recommendations; General Recommendations; Minute of Dissent; Appendices I to IV.

RECOMMENDATIONS

In the course of the evidence adduced before us and in the discussions which we have had with representatives of the various authorities and organisations, three points of view have broadly emerged. Of these, two may be regarded as belonging to two extremes. The first point of view is that the standard of university education having deteriorated in recent years, a university degree does not represent that standard of academic attainment that was associated with it earlier. This being so, it is argued, a university degree is not really a very high standard to set for even the middle levels of Government service. A person who does not acquire a university degree even in the present circumstances when such degrees are comparatively easy to acquire is obviously of

a lower standard still in educational and cultural attainment. It would be in the interests of efficiency to recruit such persons to the public services. It is argued by the protagonists of this view that in practical administration the Government must be realistic enough to recognise the standards that obtain at present at various levels of education. To ignore such standards and to recruit non-graduates to various levels of Government service merely because non-graduates are recruited to corresponding levels in other countries would be highly unrealistic.

The other extreme view on the contrary maintains that competence and even academic attainment cannot be measured by certificates and degrees given by universities. No such qualification should be prescribed at all. Recruitment to the public services should be on the basis of competitive examinations. The standard of such examinations may be as high as is considered necessary for the level to which recruitment is made. Success in such examinations would by itself carry sufficient assurance of the intellectual qualities of the candidate, and would render unnecessary such artificial standards as School Final Certificate or a university degree. It is argued by the supporters of this view that it is quite possible for a person to attain a high intellectual standard without going anywhere near a university. In fact, lack of economic resources and other reasons might prevent bright young persons from studying at a university, and yet they may have by private study attained the same intellectual standard as, if not even higher than, those who have obtained their B.A. or M.A. degrees. There is no reason why such persons should be kept out of the public services.

Between these two extreme views, a large number of witnesses who appeared before us expressed the view that while a university degree should continue to be the minimum qualification for the higher levels of Government service, it need not be insisted upon for levels which are not so high. While agreeing on this broad generalisation, there were naturally differences of opinion even among such witnesses as to the level at which the line should be drawn. Some witnesses felt that the present requirements were by and large fair, and that only slight modifications need be made. Others however were of the opinion that the level of public services at which non-graduates could be admitted could be raised considerably above what it is today.

We have given careful consideration to the three

points of view. We are unable to agree with the first view because it not only holds out no solution of the problem which has arisen but, in fact, perpetuates the vicious circle to which we have already referred. The result of the indiscriminate insistence on university degrees has been to create a rush for university education even among people who can neither afford such education economically, nor are likely to profit by it intellectually. There are numerous instances where families have been hard put to finance the university education of their children only to discover after a number of years that either

(a) the persons in question have not the aptitude to pass the course successfully; or

(b) even if they do pass and ultimately obtain the long-cherished degree, it does not help them to find the type of employment they desire.

Naturally there is disillusionment which is all the more bitter as it follows a comparatively long period of economic hardship and misery. In these circumstances, it would be a counsel of despair to suggest that the vicious circle cannot be broken at any stage. The circle must be broken and can be done either

(a) by refusing admission to universities to persons who do not attain a certain standard in the Secondary Schools; or

(b) by removing the inducements which make persons go in for university education even when they have no special taste for it.

It can certainly be argued by the protagonists of the view under discussion that the first alternative is the only right course. The universities, it may be contended, should strictly limit admission on the basis of candidates' performance in schools. While undoubtedly there is some scope for action in this respect, it would be highly unrealistic to suppose that in the face of a strong public desire to obtain admission to universities it would be possible for the latter to refuse admission to any considerable proportion of the intending entrants. By refusing such admission universities would not only lay themselves open to the charge of denying higher education to a proportion of the population but also of practically denying them decent employment thereafter, as no such employment would be available except to university graduates. In any case, the second alternative should be immediately pursued. University education must be placed in its proper perspective in relation to employment opportunities, and the desire to obtain some sort of a degree only to get employment thereafter discouraged.

It has been urged that there is no positive evidence to support the view that the rush for university education arises out of a desire for employment, or, to put it in a different form, that the elimination of the degree requirement for public services would to any apprecia-

ble extent reduce this rush. In a matter like this it is extremely difficult, if not impossible, to collect evidence which would establish causal relationship between the two phenomena, namely, the rush for university education, on the one hand, and the desire for employment on the other. In fact, it would be simplifying matters unduly if the desire for employment were regarded as the only reason for the congestion at universities. There are certainly other reasons, not the least of which is the absence of employment opportunities at the pre-university stage. The fact that there is unemployment on a large scale among the middle classes is certainly one of the reasons why in the absence of any better occupation, both parents and students find the continuance of education the only useful occupation. From our experience, and this was corroborated by those of the witnesses who appeared before us, it is not difficult to conclude that many students enter universities merely because at this stage they have nothing better to do. Nevertheless, there is no doubt that the hope of improving their prospects of getting employment is an important factor which induces many students to enter universities. Recruitment is also effected on an *ad hoc* basis, direct by the Commissions or other Government agencies.

The desire for employment is at least an important consideration which induces students to take up university education. If such employment, or at least a proportion of it, could be made available to persons without university education, there will at least be one factor less contributing to overcrowding at universities. Besides, if a proportion of students could be drawn into the services at the end of their school careers, the number of persons who would continue with university education in the absence of better occupation would also be correspondingly reduced.

The second view referred to above, namely, that competence and academic attainment cannot be measured by university degrees, in the opinion of the Committee, goes to the other extreme. To dispense with academic qualifications altogether and to rely on competitive recruitment examinations in order to ensure maintenance of intellectual standards in public services would, in our opinion, be unwise. It is, of course, possible to point to stray cases in which persons have obtained high intellectual and cultural standards completely outside the universities. Instances can be cited of literary geniuses like Shakespeare and Rabindranath Tagore who have never had any university education. Genius has no law, but to base a scheme on such exceptions would be dangerous. The fact, on the other hand, remains that university education, apart from the intellectual standard that goes with it, does carry certain cultural values and a maturity of outlook. These values cannot be assessed by examinations, however thorough. There is no system of examination so far conceived that can completely and

correctly assess the total personality of an individual. Personality is a complex phenomenon and is built up through a variety of experiences, of which experience in a university is an important one. However poor the university standard may be, its contribution to the development of personality cannot be altogether ignored. Nor should university education be condemned because the present standard of such education in our country is not uniformly high. If the standard of university education is not as high in India as it should be, our efforts should be directed towards improving the standard. To condemn university education or to ignore it because we fail to improve the standard is at best a counsel of despair. We must presume, therefore, that the very fact that a person has passed through a university and done the usual course carries with it some assurance that he has developed a certain degree of personality. There is no means of judging with complete assurance to what extent this personality has been developed by those who have not had this experience.

A view has been put forward by some of our colleagues that university education should be dissociated from employment prospects. It has been argued that as long as these two are connected, university atmosphere will continue to be vitiated by the influx into the universities of persons whose main, if not only, objective is to obtain some advantage in the matter of employment. We appreciate the high idealism which inspires this view and which seeks to maintain the purity of academic education. We do not agree, however, that elimination of the degree qualification from public service requirements will lead to the objective which the advocates of this view have in mind. There is no doubt that at the highest levels of public services there is need for persons who have attained high intellectual and cultural standards. Organised opportunities for attainment of such standards exist, at present, only in the universities. The public services, therefore, have a definite need for persons trained in these universities. Employment in these spheres cannot, as a consequence, be divorced entirely from university education, nor would it be in the larger public interest to do so. Our colleagues who advocate this view under discussion would rely on a sufficiently searching recruitment examination for entry into the public services and would eliminate degree requirements. It is admitted by them however that as long as a high standard of recruitment examination is maintained, very few persons without university training are likely to succeed in such competitive examinations. Those ambitious to enter at these levels would therefore continue to avail themselves of the training which university education has to offer, for they would realise that it is only by doing so that they would have any reasonable chance of fulfilling their ambitions. As long as this is so, a complete divorce between university education and employ-

ment prospects is not possible, and there is no way of ensuring that persons who go in for university education do so solely because of their love for such education.

On these grounds, we are of the opinion that university degrees cannot and should not be dispensed with entirely. There is no doubt however that there has been exaggerated emphasis on such degrees in our country for reasons which have already been stated. A re-examination of the requirements in relation to the different levels of Government services is, therefore, what is required. For this purpose we have broadly divided public services into three categories:

- (a) Senior Officers—Executive and Administrative.
- (b) Junior Officers—Executive and Administrative.
- (c) Clerical Services.

The first category, namely, that of senior executive and administrative services, would include the All India Services as well as the Central and State Class I Services where persons would be required to take important decisions and have intimate acquaintance with the policy-making activities of the Government. As an illustration, it may be stated that the services to which recruitment is now made on the results of the Combined Competitive Examinations held by the Union Public Service Commission for recruiting to the I.A.S., I.F.S., etc., and the services which are described as Class I Executive Services in the State Governments would fall under this category. The third category would comprise the clerical or ministerial services where duties are of a routine nature. All the rest will come under the second category.

In classifying the services in these three categories we have excluded those of a technical and professional nature for which special considerations would apply. By technical services we mean those that require not merely specialised experience but qualifications or training of a technical nature. There is a tendency today for all services to be more and more specialised. This, however, only means that those services have to be manned by persons who have acquired some specialised experience of these branches of activity. They are not, strictly speaking, technical services. On the other hand, there are services like engineering which require special training and qualifications. These are the services that can rightly be regarded as technical services. There are, besides, what may be termed professional services, such as services relating to law, medicine and teaching. These technical and professional services we have excluded from our purview.

In our opinion, a university degree should definitely not be insisted upon for the clerical services. We would in fact go a step further, and while we would not disqualify graduates from entering the clerical services, we would discourage them from doing so. This, we feel, can best be done by fixing the age limits at suitable levels which

would preclude graduates from entering this service. Against the background of the reorganised system of education to which we have referred, we would suggest that for clerical services the age limit should be 17-19. When the new system of education comes into force, it would not be possible for anyone to obtain a degree before the age of 20. To fix the maximum age limit at 19 would therefore preclude graduates from competing for such services.

This, we feel, will have a distinct advantage. Persons who are interested in services of this type would know as soon as they complete the Secondary school stage that they would have to compete for these services without going in for a university course. In fact, those who do go in for university course will do so with the realisation that the clerical services would be closed to them. There will thus be no question of any disillusionment at the end of university career arising out of a graduate not being able to get even a clerical post.

It has, however, been pointed out to us that for certain types of employment it would not be appropriate to insist rigidly on the age limit 17-19 recommended by us. There are posts in certain departments which are grouped with the clerical services mainly because they carry the clerical rates of pay. They are lower executive in nature and in some cases carry a marked degree of responsibility, though not perhaps much of discretion. Such posts to which our attention has in particular been drawn are posts in the lower formations of the Revenue, Railway and Communication Departments. Normally, even in such cases it should be possible to recruit at the age level suggested by us and to give the recruits adequate training for a sufficiently long period to enable them to discharge their duties satisfactorily. This, however, naturally presumes that recruitment will be made in due anticipation of the requirements by the Departments concerned. In an expanding economy where the State has, without sufficient notice, to undertake new activities, such planned anticipation is not always possible. A new taxation introduced in a new financial year may well require a large number of tax collectors for whom there is no time to be trained. In such emergent situations it would hardly be possible to entrust the responsibilities to persons of the age level contemplated by us. A higher level of maturity is obviously called for. We agree that in such circumstances there would be a good ground for deviating from the general recommendation we have made.

We suggest that each such case should be considered on its merits, and slightly higher age levels introduced as and where necessary.

For the middle category we are of the opinion that a university degree should not be made the minimum qualification, but that graduates should be given an opportunity to compete, if they so desire. We, therefore,

suggest that the age limit for this group of services should be 19-21. This would render services of this nature open to non-graduates as well as to graduates.

Finally, for the top-most grades we are definitely of the opinion that entry into these services should be restricted to graduates. This view is based on our opinion that for the highest Executive and Administrative Services a maturity of outlook and cultural standard is required which, by and large, can naturally be expected of graduates. For these services, therefore, we recommend the age level of 21 to 23.

It will be noted that for all levels of Government service we have recommended a span of two years as against the usual span of three years between the minimum and the maximum age limits. This recommendation has been made deliberately because we are of the opinion that the mental qualities as also the personality can best be tested in one or, at the most, two examinations. A person who fails to come up to "the standard" in the first two examinations may, on the basis of his experience of the examinations and having acquired the technique thereof, be successful in the third. Such success, however, does not necessarily reflect the innate qualities of the candidate. We have also noted that under the present system of three examinations, the first examination is often taken by the candidates without that degree of seriousness that should normally go with such an effort. It is often taken only in order to acquire some experience of the technique of examinations. This leads to the number of candidates being unnecessarily multiplied, thus adding to the administrative problem of holding examinations. Two chances would obviate this disadvantage and, to that extent, would be of benefit.

We have made no mention so far about the Scheduled Castes and other Backward Classes. We would like to point out that our recommendations are made on the basis that the concessions enjoyed by the Scheduled Castes, Scheduled Tribes and other Backward Classes are not in any way affected.

We would like to mention at this stage that our recommendation throwing open clerical as well as the middle level of Government services to non-graduates is based on the assumption that recruitment to these levels is on the basis of open competitive examinations. We are of the opinion that for these levels it is not necessary to insist on a high level of intellectual and cultural attainment. The standard expected of persons who have passed the School Final under the reorganised system is sufficient for these levels, but it is necessary to ensure that this standard is tested in an examination. Where such recruitment examinations are not held, it would be necessary to fall back, as at present, on university degrees which, in the absence of any other objective test, would guarantee at least a minimum standard of the qualities required for the posts. We recommend

that as far as possible individual posts should be grouped together in organised services and competitive examinations held for recruitment to such services, and that the age levels and the educational qualifications should be as suggested by us. Where however, such examinations are not possible a higher standard of qualification should be maintained.

Interim Arrangements: Our recommendations, as already stated, have been conceived against the background of the proposed educational reorganisation. The period which lapses before the reorganised system is adopted should, we feel, be utilised in giving notice to the future recruits about the proposed changes for admission to the recruitment examinations. We recognise that a reasonable period of notice before the introduction of the new scheme is essential to avoid hardship. Persons who have embarked on a course of university education and have perhaps faced difficulties, financial and otherwise, in the hope of obtaining employment under the Government should not certainly find employment prospects disappear on account of a change in the recruitment policy. An interim period of notice is therefore essential for a transition to the new system and we recommend accordingly.

14 1557

General Recommendations

Recruitment Examinations: We have suggested that the degree qualification should be abolished for the lower and middle levels of public services. We have however recommended that it should continue for the top levels. For all levels of Government service however we are of the opinion that recruitment examinations of adequate standard should be held for the selection of candidates. We would like to make the following observations regarding the nature of such examinations.

The examination should be of a comprehensive nature and should test the mental qualities rather than merely the memory or the fund of information of the candidates. Every paper in the examination for the higher services should be of the Honours standard and every candidate for such services should be required to take at least two subjects. The questions set at the examination should be so framed as to test the capacity of the candidates for rational thinking as well as their sense of values. The questions should deal with the significant phases of the subject and emphasise evaluation and rational thinking. They should compel the candidates to integrate their ideas and draw upon the entire background of their knowledge and also test the candidates' reaction to different circumstances. The questions should also test the mental alertness of the candidates and offer scope for originality of thought and expression.

In addition to these tests, there should also be some test for judging the personality, attitude of candidates.

Their past career may offer some insight into these and, in addition, the first three months of the probationary period should be used for forming a correct idea about their personality. Obviously, unsuitable candidates may during these three months be weeded out by a properly constituted Board in consultation with the Public Service Commission. One way of ensuring that the candidates derive full benefit from their period of probation may be to evaluate their achievements during this period and add it to the competitive examination marks for determining their final ranking in the services.

Method of Promotion: A point of view has been expressed before us that lowering the academic standard for certain levels of Government service may be unobjectionable so far as work at those levels is concerned, but that it would have the disadvantage of not qualifying such persons for promotion to higher posts. It has been argued, for instance, that a non-graduate who is appointed as an Executive Officer under a State Government or to a Class II post at the Centre may function satisfactorily enough on these posts. In making such appointments however it would be wrong to confine our view to the particular posts or services to which such persons are appointed. It should be open to every individual in the public services to rise to the highest post available on the basis of his merit. Unless such prospects are available, frustration is bound to creep in, and this will reduce the value and efficiency of the service. A non-graduate, on the other hand, however good he may be for the post to which he is appointed is not likely, it is argued, to have the mental calibre necessary for rising to the highest post in the superior services. To that extent, their promotion will be limited and a feeling of frustration created.

We have considered this problem and we appreciate the validity of the point raised. We have, on the other hand, had evidence to show that a graduate is not always superior in merit to a non-graduate. Several State Governments informed us that there have been numerous instances in which in written examinations non-graduates have successfully beaten graduates who have competed with them. This is specially true where the written examination is conducted not on a purely academic basis but is limited to the work of the department in which it is held. Nevertheless, it cannot be denied that absence of higher education may, to some extent, render persons unfit for promotion to higher posts. We have recommended that university education need not be insisted upon except for the higher levels of Government services. We appreciate that an influx of non-graduates at the lower levels which this recommendation envisages may render a review of promotion prospects necessary. We recommend that such reviews should be undertaken on the basis of actual experience. At the same time it is necessary to ensure that promotions are not denied to

non-graduates merely because of certain prejudices against such persons. It is necessary that their merit should be decided in a purely objective manner. We therefore recommend that as far as possible promotion from grade to grade should be made on the basis of departmental examinations. We appreciate that for all levels of Government services and on all occasions this may not be possible. We do feel however that the system of departmental examinations should be utilised to a larger extent than it is at present, especially in established cadres. We therefore recommend that the Government should not only review promotion quotas at present fixed but also undertake re-examination of the methods of promotion, and, to the extent possible, institute departmental examinations particularly in respect of organised services.

Training: We have given careful attention to the question of training of recruits to the various levels of public services. The problem of training is an important one, and there are reasons to believe that one of the reasons for the difficulty in maintaining a high standard of efficiency in the public services lies in the fact that it has been difficult for the training course of recruits to keep pace with the very much increased rate of recruitment to the expanded services. The administrative problem of training which the expansion of services has created is not only highly important but a very complicated one. We appreciate however that it is beyond the Terms of Reference of this Committee to examine this general problem. Nevertheless, we have a special responsibility in this matter. We have recommended that persons should be recruited to the lowest and the middle levels at ages which are much below those prevailing at present. Our recommendations also envisage that at the lowest levels the recruits would all be non-graduates, and at the middle level a proportion of them would have no university education. The comparative immaturity which goes with lower age levels and the lack of university education in a large proportion of Government servants intensify the need for adequate training before such persons are called upon to discharge the duties for which they are recruited. We therefore consider it an essential part of our recommendations that a proper scheme of training for all levels of Government service should be accepted and implemented by the Governments both at the Centre and in the States. In this Report we can give only an outline of the training which we envisage as the basic minimum. Further details will obviously have to be worked out by the Governments themselves.

For the lower levels of Government service, particularly at the clerical level, training will obviously have to be decentralised. We contemplate training at this level to be given in the districts, preferably at one centre for a group of districts. The period of training should

be at least one year and should consist not only of professional items such as typing, maintenance of files, noting, drafting, etc., but also instruction in general subjects aimed at giving the recruits a general education to render them not only good clerks but useful citizens. For the higher levels of Government services a similar scheme should be adopted. In this connection a point of view which has been expressed before us is that at least for the highest level, like the All-India Services, it would be useful to entrust the training to some selected universities. It has been argued that by doing so we shall help to break the barrier which exists at present between Government servants and the general public. While there is undoubtedly considerable force in this suggestion, we feel that the balance of advantage would lie in the Governments themselves organising courses of training with such help as may be necessary from the universities instead of seconding the probationers to a course of study at one of the universities. At the highest level we do envisage a university degree as the minimum qualification. All the recruits to these services, therefore, would have spent a number of years at a university and no useful purpose would therefore be served by sending them back to a university for a further period. On the other hand, there would certainly be considerable advantage in using the facilities which universities have to offer in order to impart instruction in subjects which are important for the training of the higher civil servants. Social subjects, particularly Economics, are of the highest importance in the present context in administration. To a lesser extent a knowledge of Law is essential for the Administrative Services. Instruction in these subjects may well be arranged in co-operation with the universities. We therefore recommend that the courses of training should be arranged in consultation with and with the cooperation of the universities but under the auspices of the appropriate Government department.

We are also of the opinion that for the highest executive and administrative services a period of training abroad after they have seen different parts of India would be highly useful. This will not only help to broaden the outlook of the recruits generally but also help to develop in them an All-India outlook by enabling them to view our own country from outside and give them a more correct perspective of her needs and aspirations.

Limitation of Numbers: The Terms of Reference of this Committee have drawn our attention to the problem of numbers that would inevitably arise from any lowering of academic standards. There is no doubt that if non-graduates are allowed to compete for the various services, larger numbers would apply for these services than would have applied if applicants were limited to graduates. This increase in numbers may well create a serious administrative problem. Apart from the pro-

blem of arranging for the examination of large numbers of candidates, the question would arise of maintaining a uniform standard with respect to all those who appear at such an examination. It is well known that uniformity in the assessment of examination is conducted by a number of examiners who do not necessarily follow the same standard of assessment. The problem arises as soon as the number of examiners is more than one. But it can be kept under control so long as the number is reasonably small. With the increase in the number of examinees the number of examiners has to be increased proportionately and the problem of maintaining uniformity among a very large number of examiners throws up a problem of considerable complexity. To meet this problem of numbers, a suggestion has been made that a system of deposits should be insisted on from all examinees. These deposits should be refundable to candidates who secure the prescribed minimum percentage of marks but should be forfeited in the case of those who do not even attain this standard. The fear of forfeiture, it is hoped, will deter frivolous candidates who have no reasonable chance of successfully competing at the examination and will thus help to reduce the number of examinees. The suggestion is an attractive one but it has been opposed on behalf of several institutions and organisations on the ground that it would penalise the poor candidates more than the rich. The system of deposits would be no deterrent to the rich and the well-to-do even if they chose to be frivolous, but would impose a real hardship on those who are hard put to collect the money for deposit. We agree with this criticism and are unable to recommend a system which is obviously open to the criticism of being particularly hard on poorer candidates. As an alternative, we would suggest that where the number of examinees is very large, a system of weeding out by preliminary examination may be adopted. The preliminary examination should be restricted to one or two simple written papers which would test the general alertness and mental calibre of the candidates concerned. As a result of this preliminary test a number of candidates equal to a given multiple of the number to be finally recruited should be selected for the final examination. It is true that the preliminary examination would be subject to the same defect of lack of uniformity as for any examination where large numbers appear. For a preliminary examination however lack of uniformity is not necessarily a serious disadvantage,

provided deviations from the norm are not very great. As a result of this examination a much larger number would be selected for the final examination than there are vacancies. So long as a liberal margin is allowed, it would not make any serious difference whether a few persons at the margin are or are not allowed to compete for the final examination, because the marginal candidates would not have a serious chance of being finally recruited.

A point which has been brought to our notice often in the course of our discussions is the lack of uniformity in the standards of the various universities all over the country. The same degree or diploma given by two different universities often involves two entirely different standards. A B.A. or a Ph.D. of one university is not necessarily of the same standard as a B.A. or a Ph.D. of another. This is a problem which we are informed has engaged the attention of the education authorities but has defied solution so far on the ground that there is no objective standard on the basis of which the degrees awarded by different universities could be measured. The problem is, however, important from the point of view of the recruitment policy of the Government. We have recommended that a degree should be made a prerequisite qualification for the highest levels of Government service. This recommendation would be without significance if the degree did not at least approximately measure up to a certain standard of academic and cultural attainment. We appreciate, however, that the problem is complicated and a solution must be left to the authorities in charge of higher education in this country. We do feel however that recruiting authorities like Public Service Commissions may help considerably in devising an objective standard for assessing the value of education given by the different universities and thus help the authorities concerned to introduce some uniformity in this respect. We recommend that Public Service Commissions should publish annually tabulated results of the examinations held by them, analysing the marks obtained by candidates from different universities in different subjects. The results thus tabulated would speak for themselves and the long-term trends would clearly indicate the quality of the products of different universities in different subjects in which they are trained. Such materials would provide an objective basis on which the quality of the training imparted by different universities can be assessed.

COMMITTEE TO STUDY THE QUESTION OF FORMULATING UNIFORM STANDARDS IN RESPECT OF EDUCATION AND REGULATION OF PRACTICE OF VAIDYAS, HAKIMS AND HOMOEOPATHS, 1955—FINAL REPORT

New Delhi, Ministry of Health, 1956. 129p.

Chairman : Shri Dayashankar Trikamji Dave.
Members : Shri A. A. Rahim (resigned); Shri Shanti Lal H. Shah; Shri Mehdi Nawaz Jung;
 Shri A. D. Mukherji.
Adviser : Shri Vasudevhai M. Dwivedi.
Secretary : Dr. H. B. N. Swift.
Joint
Secretaries : Dr. P. M. Mehta; Dr. C. L. Malhotra.

APPOINTMENT

In pursuance of the Resolution passed by the Central Council of Health at Trivandrum at their third meeting held on January 23 to 25, 1955, the Government of India appointed vide their letter No. F. 8-11/55M, dated April 27, 1955, a Committee to study and report on the question of establishing uniform standards in respect of education and regulation of practice of Vaidyas, Hakims, and Homoeopaths.

TERMS OF REFERENCE

1. To survey the existing facilities for teaching in Ayurvedic, Unani and Homoeopathic systems of medicine;
2. To recommend specific measures to be taken to improve facilities for training and to establish uniform standards of education in these systems;
3. To make suggestions for the regulation of practice in these systems of medicine including the desirability of State control.

If the opinion of the Committee be in favour of State control, the Committee should examine the Draft Legislation prepared by this Ministry and recommend what modifications, if any, are necessary and submit a Model Draft Legislation. The Committee may also recommend whether the Model Draft Legislation submitted by it should be enacted by the Union Government or by the respective State Governments.

CONTENTS

Introduction; Courses of Instruction for Ayurvedic and Unani Systems of Medicine; Course of Instruction for Homoeopathy; Councils and Directorate; Post-Graduate Instruction and Research; Summary of Recommendations; Conclusion; Appendices I to VI.

RECOMMENDATIONS

1. There must be uniform standard of training.
2. (i) Two Councils should be created similar to the Indian Medical Council which will have control over the maintenance of uniform teaching standards in all the institutions: one Council shall be for Ayurvedic and Unani Systems of Medicine and the other for Homoeopathy. The Councils may be called:
 - (1) The Central Council of Ayurvedic and Unani Systems of Medicine, and
 - (2) The Central Council for Homoeopathic System of Medicine.
- (ii) The composition of the Council may be as follows:
 - (1) One member from each State to be nominated by the State Government;
 - (2) One member from each Indian University, which possesses a Faculty of Ayurvedic, Unani and/or Homoeopathy, to be nominated by the Vice-Chancellor;
 - (3) Four members to be nominated by the Central Government.
- (iii) The first Council will be nominated with a nominated President.
3. The existing institutions should be upgraded so that they can efficiently impart education in these systems.
4. (i) A five-and-a-half year course of study including one year for Internship is recommended with at least three months' training in the rural areas.
 - (ii) Admission—Intermediate Science examination with Physics, Chemistry and Biology or Higher Secondary examination. Good knowledge of Sanskrit and Arabic or Persian is essential for Ayurveda and Unani respectively.
 - (iii) Minimum age of the candidates should be 17 years.
5. Next textbooks subjectwise should be written; and those already existing should be revised. The State Governments and Universities should encourage this.
6. The training and syllabus prescribed should be taken up by separate Faculties for Ayurvedic and Unani Systems of Medicine. It is desirable that these Faculties be affiliated to the Universities, if possible.

7. The Pharmacopoeia and Dictionary of Ayurvedic and Unani Systems of Medicine should be compiled.

8. A five-and-a-half-year degree course should be introduced for Homoeopathy four-and-a-half-year course with one year's internship. The course for Homoeopathy would be more or less in the lines suggested by the Homoeopathy Inquiry Committee (1949).

9. All the teaching institutions should have indoor hospital beds and the ratio of students to beds should be 1 : 5.

10. The degrees to be given to the graduates should be:

(1) "G.A.M.S."—Graduate of Ayurvedic Medicine and Surgery;

(2) "G.U.M.S."—Graduate of Unani Medicine and Surgery; and

(3) "G.H.M.S."—Graduate of Homoeopathic Medicine and Surgery.

11. Separate Directorates for (a) Ayurvedic and Unani and (b) Homoeopathic Systems of Medicine should be created in the Central Ministry of Health, Government of India, and also in the States as far as possible.

12. Post-Graduate training and research facilities should be given to all the three systems at suitable places and also to Graduates of Modern Medicine. The duration of the Post-Graduate Course shall be of two years.

13. Refresher courses in Ayurveda, Unani and Homoeopathy should be organised in teaching institutions.

COMMITTEE TO STUDY THE QUESTION OF FORMULATING UNIFORM STANDARDS IN RESPECT OF EDUCATION AND REGULATION OF PRACTICE OF VAIDYAS, HAKIMS AND HOMOEOPATHS, 1955—INTERIM REPORT

Delhi, Manager of Publications, 1956. 144p.

Chairman : Shri Dayashankar Trikamji Dave.
Members : Shri A. A. Rahim; Shri Shanti Lal H. Shah;
Shri Mehdi Nawaz Jung; Shri A. D. Mukherji.
Adviser : Shri Vasudevbhai M. Dwivedi.
Secretary : Dr. H. B. N. Swift.
Joint
Secretaries : Dr. P. M. Mehta; Dr. C. L. Malhotra.

APPOINTMENT

In pursuance of the Resolution passed by the Central Council of Health at Trivandrum at their third meeting held on January 23 to 25, 1955, the Government of India appointed vide their letter No. F. 8-11/55M, dated April 27, 1955, a committee to study and report on the question of establishing uniform standards in respect of Education and Regulation of Practice of Vaidyas, Hakims, and Homoeopaths.

TERMS OF REFERENCE

1. To survey the existing facilities for teaching in Ayurvedic, Unani and Homoeopathic systems of medicine;

2. To recommend specific measures to be taken to improve facilities for training and to establish uniform standards of education in these systems;

3. To make suggestions for the regulation of practice

in these systems of medicine including the desirability of State control.

If the opinion of the Committee be in favour of State control, the Committee should examine the Draft legislation prepared by this Ministry and recommend what modifications, if any, are necessary and submit a model draft legislation. The Committee may also recommend whether the model draft legislation submitted by it should be enacted by the Union Government or by the respective State Governments.

CONTENTS

Introduction; Appointment of the Committee; Terms of Reference; Recommendations of the Committee; Appendices from I to VIII.

RECOMMENDATIONS

1. There should be separate registers for Ayurveda, Unani and Homoeopathy.

2. Persons who are of 15 years' standing prior to the appointed day will be on the register along with the institutionally qualified persons and that the rest who have two years' practice on the appointed day should be on a list.

3. Fees should be levied for registration. The amount may however be left to the discretion of each State. Whether only initial registration fee should be charged

or a renewal fee also should be charged may also be left to the discretion of each State.

4. Initially there should be a nominated body to control the practitioners for three years and subsequent bodies may be partly elected and partly nominated.

5. Not more than one-third of the members in the board should be nominated and that the Director, Indigenous Systems of Medicine, if any, or the Officer in-charge of the Indigenous Systems of Medicine or a Government nominee should be ex-officio member of the Council. The composition of the Board should be such as the State may think expedient.

6. There should be separate registers for practitioners in Ayurvedic and Unani and Homoeopathic systems. If the number of practitioners exceeded 100 a separate board should be constituted otherwise a joint register and board are favoured in so far as the Ayurvedic and Unani are concerned. Homoeopathy should have a separate register and a separate board.

7. The privileges should be given only to Registered Practitioners and not to Enlisted Practitioners.

8. Registered Medical Practitioners of Ayurvedic, Unani and Homoeopathic systems of medicine should be treated with regard to the privileges mentioned earlier at par with the practitioners in modern medicine.

9. Unregistered or Unenlisted Practitioners can practise in rural areas as defined by the State which have no Registered Practitioners.

10. The term of office of the Board should ordinarily be five years. The first Board (a nominated one) shall be for three years.

11. So far as professional conduct and practice are concerned there should be separate registration by each State bearing in mind the above principles laid down for the sake of uniformity and there should be reciprocity of registration.

12. For regulating academic teaching and standards the control should vest with the Central Body so constituted.

13. The State legislation should be passed within two years and should not await Central legislation.

14. The legislation about Homoeopathy should also be on similar lines. Central legislation embracing regulation of practice, professional ethics and teaching would not be feasible. Since the subject medical qualification is a concurrent subject the Central Body may be a co-ordinating body exercising control over academic standards and teaching.

15. The Medical Degrees Act should be amended so that the use of a bogus degree in Ayurveda, Unani and Homoeopathy can be prohibited.

16. In case of States which have existing legislation the question of registration and enlistment need not be reopened, but the amendments may be made to bring the legislation in line with our recommendations.

AD HOC COMMITTEE ON SLAUGHTER-HOUSES AND MEAT INSPECTION PRACTICES, 1955—REPORT

New Delhi, Ministry of Food and Agriculture, 1957. 166p.

Chairman : Dr. S. Datta.

Members : Shri S. R. Chadha; Shri H. S. Bawa; Shri V. A. Mehta; Dr. K. Mitra (replaced by Dr. Y. K. Subrahmanyam).

Secretary : Shri R. N. Mohan.

APPOINTMENT

The Ad Hoc Committee on Slaughter-Houses and Meat Inspection Practices was constituted under the Ministry of Food and Agriculture vide their Resolution No. F. 25-2/54-LS, dated May 11, 1955.

TERMS OF REFERENCE

(i) (a) To examine the existing slaughter-houses and meat inspection practices; and

(b) To make suitable recommendations for the purpose of ensuring arrangements in such States as possess or could provide the necessary facilities for ante- and post-mortem examination carried out by veterinarians so as to conform to the regulations of the U.K., the U.S.A., etc.

(ii) (a) To examine the report of the Pharmaceutical Enquiry Committee in regard to improving the supply of animal glands and organs for the manufacture of hormones and glandular products;

(b) To examine the proposal for the establishment of an experimental *abattoir* with facilities for collection and storage of glands to serve as a model for other slaughter-houses; and

(c) To make suitable recommendations in this regard.

Subsequently, problems relating to export of meat, especially piggery products, were also referred to the Committee by the Government of India.

CONTENTS

Introduction; Programme of Work; Slaughter-House; Production and Inspection of Meat; Slaughter-House By-products; Export Trade in Casings; Utilization of Animal Glands and Organs; Export Trade in Meat; Control and Improvement of Meat Inspection; Summary and Recommendations; Appendices I to XII.

RECOMMENDATIONS

Slaughter-Houses

All urban slaughter-houses as well as the butchers and flayers working there should be licensed, and entry to slaughter-houses strictly regulated.

Greater proportion of the income derived from slaughter-houses should be spent on their upkeep, efficient running and improvement.

Slaughtering fees, where these are low, should be suitably enhanced as far as possible.

For accommodating animals awaiting slaughter, every slaughter-house should have a properly constructed lairage, and this should afford protection against sun and rain, allow ample supply of drinking water and provide sufficient accommodation as well as satisfactory arrangements for securing and handling animals for facilitating a quick but careful ante-mortem examination of individual animals.

The general construction and orientation of the lairage, slaughter hall, etc., should be such that the animals awaiting slaughter are not able to see the slaughtering and other operations.

All such urban slaughter-houses as have now fallen within or very close to inhabited areas should be closed down and new slaughter-houses, designed on modern lines and well provided with requisite arrangements and facilities for efficiently conducting the slaughtering, flaying, dressing and all other operations, should be set up well away from inhabited areas. In selecting the new sites, future expansion of the towns should be taken into consideration, and adequate space should be provided for future development of the slaughter-house and for locating around it the various ancillary trades.

In the meantime, all necessary structural alterations and other improvements should be made in the existing slaughter-houses to facilitate slaughter and the various operations before and after slaughter.

In slaughter-houses handling much larger numbers than they were designed for arrangements should be made for slaughter in suitably regulated shifts to relieve congestion and to facilitate operations and inspection.

Production And Inspection Of Meat

Better arrangements for the carriage of animals to slaughter-houses should be provided, and the railway wagons meant for animal transport should be so constructed that they do not become excessively hot during summer or unbearably cold during winter.

Livestock markets should be located as close to the slaughter-houses as possible.

All animals before slaughter should be rested for at least 12 hours in the lairage.

It should be made incumbent on all Municipalities and Local Boards to engage adequate number of Veterinary Officers and to provide the requisite facilities for carrying out proper ante-mortem examination in all slaughter-houses; proper maintenance of records of all animals rejected on ante-mortem examination should be insisted upon.

Gimbals and hooks for hoisting carcasses must be provided in sufficient numbers in all slaughter-houses to facilitate flaying and dressing as well as post-mortem examination.

Post-mortem inspection by qualified Veterinary Officers should be made compulsory at all slaughter-houses and should be rigidly enforced by the State Governments, and for this purpose the Municipalities and Local Boards must employ adequate veterinary staff to be determined by the number of animals slaughtered each day and provide all necessary facilities for conducting the examination.

Incinerators or rendering-down plants should be provided in all large slaughter-houses.

Maintenance of proper records of all condemned organs, etc., should be insisted upon.

Municipalities should provide suitable cold-storage at slaughter-houses for storing dressed carcasses and glands and organs wherever required.

They should also ensure proper sanitary conditions for the transport and sale of meat and, at least in big cities, provide fly-proof motor transport and cold-storage facilities in the main meat markets or encourage private enterprise to do so.

Slaughter-House Byproducts

Systematic collection, efficient preservation and processing, and full utilization of all slaughter-house by-products and wastes should be properly organised in all towns.

Gut-washing tanks and other facilities for timely washing and clearing of the intestines should be provided in all slaughter-houses.

All slaughter-houses should provide and maintain in workable condition adequate hoisting arrangements to facilitate proper flaying and dressing, and the use of modern tools by flayers should be insisted upon. Curing salt and modern flaying tools should be made available

for sale on slaughter-house premises. Flayers should also be fully trained and licensed, and rules for the examination of flayers, conditions of license, etc., should be framed on an all-India basis. Sale of hides and skins should be on the basis of their quality—for which a reliable system of grading should be introduced—and sale by forward contract should be forbidden. Hide-curing yards should be provided at or close to slaughter-houses.

Special bleeding rails and channels for collecting blood free from admixture with ingesta, etc., should be provided in all urban slaughter-houses. It should be made obligatory on the authorities in charge of urban slaughter-houses to ensure proper collection of blood and its processing for use as animal feed, manure, etc., and in big cities also for pharmaceutical purposes.

Export Trade In Casings

Until conditions in respect of production and inspection of meat can be improved throughout the country, big slaughter-houses where large numbers of animals are slaughtered should be modernised and provided with efficient ante- and post-mortem examination services and suitable facilities for collection, cleaning and handling of the intestines.

The Government of India should then arrange for the required certification and take up with the U.K., the U.S.A. and other countries the question of casings produced at these slaughter-houses being accepted by them. For this purpose, the recommendations made for "Export Trade in Meat" should be implemented.

The Government should also arrange for licensing and regular inspection of all casings manufacturing concerns to ensure observance of necessary sanitary precautions in the handling, processing and packing of this material meant for human consumption.

The Government of India should provide the technical know-how and other facilities, such as machinery required for complete processing, sterilisation and grading of surgical eat-gut in India.

Utilisation Of Animal Glands And Organs

Steps should be taken to make India self-sufficient in its requirements of glandular preparations as quickly as possible and thereby save much valuable foreign exchange which is at present being expended on importing large quantities of such products.

All slaughter-houses in large cities, especially Bombay, Calcutta, Madras and Delhi, should be modernised or rebuilt and equipped with arrangements for expeditious collection of glands and organs and for storing them in cold-storage.

Centralisation of all slaughter in big cities would no doubt greatly facilitate collection and utilisation of glands and organs, but the responsibility of constructing

and maintaining model slaughter-houses need not be taken over directly by the Government.

The responsibility of collecting glands and organs and supplying them to pharmaceutical concerns should be taken over by the municipalities and they should suitably compensate the butchers for the extra labour involved in expeditious removal of the glands.

It should be obligatory on the butchers to part with any of the carcass that may be required by the Municipality on payment of a reasonable price.

Butchers should be provided with suitable containers surrounded by crushed ice for chilling glands immediately on collection, and they should be duly compensated for the extra labour involved in expeditious removal of the glands.

The prices of glands and organs should be fixed from time to time by special boards consisting of a representative of the State Government, a representative of the Municipality, and a representative of the pharmaceutical industry. These boards should also settle other problems relating to collection and utilisation of animal glands and organs.

Pharmaceutical concerns should be allowed to purchase glands, organs, etc., required by them only from slaughter-houses certified for the purpose.

The Government of India should arrange for regular inspection of all pharmaceutical concerns engaged in the manufacture of glandular preparations.

Some veterinarians should be deputed to selected foreign countries for training in collection and preservation of glands and organs and their utilisation to best advantage by the pharmaceutical industry.

Well-coordinated programmes of research on the preparation and utilisation of glands and organs for preparing glandular and other pharmaceutical products should be planned and at least one well-equipped research unit for the purpose should be established. Research on this subject should also be undertaken at Research Institutes, such as the Haffkine Institute, Bombay, Indian Institute of Science, Bangalore, Indian Veterinary Research Institute, Izatnagar, and the Central Drugs Research Institute, Lucknow.

Export Trade In Meat

The Government of India should take all necessary steps to promote the export of meat and meat products and thereby earn valuable foreign exchange, and for this purpose they should arrange for proper veterinary certification, inspection of the premises concerned, and such other facilities, etc., as may be required from time to time. It is further recommended that the Government of India should appoint immediately a veterinarian of high status and adequate experience of certifying meats, with adequate staff to assist him, to

(i) make expeditiously interim arrangements for

export of meat, especially piggery products and buffalo flesh,

(ii) inspect and certify slaughter-houses and meat-packing factories for export of meat and meat products,

(iii) organise throughout the country inspection of all meat and slaughter - house products meant for export,

(iv) organise inspection of meat, etc, imported into India, and

(v) keep in touch with the import regulations and requirements of veterinary certification prescribed by the importing countries from time to time.

Control And Improvement Of Meat Inspection

There should be a comprehensive legislation governing the location, construction and management of slaughter-houses, meat inspection practices, and all other allied matters.

Ante-mortem and post-mortem examination of all food animals, as also inspection of all human food derived from animals, should be entrusted only to fully qualified veterinarians. As veterinarians have already started becoming available in larger numbers, the implementation of this recommendation should not be delayed, and municipalities should offer sufficiently remunerative salaries commensurate with the training and experience required and the duties entrusted.

At the same time, the Sanitary Inspectors at present engaged in this work in slaughter-houses should be suitably trained further in the technique of meat inspection. The State Governments may consider starting short-term training courses for this purpose.

A separate Meat Inspection Service should be created for ensuring efficient working of slaughter-houses and proper meat inspection, by integrating the veterinarians

and the sanitary inspectors engaged in meat inspection work. This Meat Inspection Service should form part of an over-all Veterinary Public Health Organisation. The veterinary inspectors engaged in meat inspection work should be designated as 'Meat Inspectors' and absorbed in this service.

The Government of India should set up a permanent Central Committee for the Development of Meat Industry and should entrust to it such necessary functions of technical advice co-ordination, supervision and control as may be required from time to time. No substantial progress would be achieved unless such a Committee is established.

The Government of India and the State Governments should provide suitable financial assistance to the municipalities for meeting the capital expenditure required for constructing new slaughter-houses and for substantially improving those not considered necessary to be shifted to new sites.

The Government of India should send a small team to study the organisation and working of slaughter-houses and allied industries in the U.S.A. and the more advanced European countries. This team should also study the organisation and functioning of the Veterinary Public Health Services in those countries where such services exist.

The services of one or more experts in different aspects of the meat industry should be obtained under the Foreign Aid Programme.

Selected officers should be deputed abroad for specialised training in slaughter-house management and meat inspection practices.

Seminars on Veterinary Public Health should be arranged periodically for ensuring co-ordinated development and progress throughout the country.

GENERAL EDUCATION STUDY TEAM, 1955—REPORT

New Delhi, Ministry of Education, 1957. 97p.

Convener : Dr. S. Bhagavantam.

Members : Dr. P. Maheshwari; Dr. S. M. Sethna (Natural Sciences). Dr. K. S. Murty; Prof. G. D. Parikh; Dr. Baljit Singh (Social Sciences). Prof. Umashankar Joshi; Mrs. Mahmud Hosain (Humanities).

APPOINTMENT

The Government of India in the Ministry of Education arranged at Srinagar in June, 1955, a conference of

a few Vice-Chancellors to consider a scheme of a General Course of Education for students which would cut across some of the current divisions among the different subjects. At this conference, a Consultative Committee was formed which discussed the desirability of introducing General Education Courses in Indian Universities. A note on the "Indo-American Curricular Project in General Education" prepared by Dr. Ward of the Ford Foundation was also considered by the Committee. In July, 1955, a circular letter was sent out

from the Ministry of Education to the Vice-Chancellors of all Universities in India along with the proceedings of the Consultative Committee that met in Srinagar and with a note on the objectives and scope of the General Education courses as envisaged by the Committee. They were requested to communicate the views of their respective universities on the suggestions made in the Proceedings of the Consultative Committee. They were also requested to make a beginning, if possible, with General Education courses that very year, if possible, and the Ministry agreed to give financial assistance where necessary. So the Government appointed the present General Education Study Team.

TERMS OF REFERENCE

(1) The Team should study critically the working of General Education Courses in the various institutions of the U.S.A. and the U.K. in order to find out what approaches to the problem have proved most effective.

(2) In the light of the conditions prevailing in the Indian Universities, they should suggest suitable approaches, which may be tried out in our country.

(3) They should formulate illustrative syllabuses and courses of lectures which may be introduced in our Universities with due regard to the present curricular load and make practicable suggestions about the manner in which they might be produced. In doing this care should be taken to see that these courses are not overloaded with mere informational items, as the object is not to provide a great deal of factual information but to develop broad interests and appreciation and healthy attitudes and to quicken the capacity for clear thinking. The method of work is, therefore, at least as important in this connection as the contents of the courses. Their proposals should include suggestions about the organisational set-up, as well as any additional personnel that may be required for the purpose.

(4) They should work out the approximate financial implications of their proposals with due regard to the limitations of financial resources under which the scheme will have to be implemented.

(5) They should suggest suitable methods for preparing reading materials for use in these courses and, for this purpose, collect, from the U.S.A. as well as the U.K., actual syllabi, books, mimeographed materials and other teaching aids which have been successfully used in these institutions.

CONTENTS

Introduction; the Scope and purpose of General Education; Some Features of Higher Education in U.S.A.; Some Patterns of General Education in Indian Universities; Organisation and Financial Implications; Summary of Recommendations; Appendix I; Appendix II.

RECOMMENDATIONS

We recommend that courses in General Education be introduced in all Indian Universities.

We have drawn up two schemes of General Education—a main Scheme that we ardently hope will be adopted sooner or later in all Universities and an alternative Scheme with which a beginning may be made almost immediately.

In the main Scheme, we recommend that General Education covering basic studies in the fields of (a) Natural Sciences, (b) Social Sciences, and (c) Humanities, together with training in communication skills, be made compulsory for all undergraduates preparing for a degree in a non-professional faculty. Out of the total time available for all studies in the three years, one-third should be devoted to General Education courses. While the bulk of this programme should come in the first year, the rest may be distributed in the second and third years or may all come in the second year.

In the alternative Scheme, we recommend that six periods per week in the first year and six periods per week in the second year of the degree course be devoted to General Education courses.

Illustrative syllabuses are furnished in each of these areas. A certain quantum of General Education, with suitable modifications where necessary, should be given to all students preparing for their first professional degrees also. Passing an examination in the prescribed General Education courses should be made a required condition in the case of all students, before graduation.

Instruction in General Education courses should be so organised that for every two lectures delivered, at least one discussion in small groups should be arranged.

Suitable reading material should be prepared by drawing freely upon source writings and the classics. Such projects should be adequately financed by the University Grants Commission and the Government.

Steps should be taken by which interest amongst a large number of teachers in the General Education programmes is promoted as a result of which participation therein will be widely encouraged.

Expansion of libraries, laboratories and other teaching aids needed for the implementation of the programmes outlined should be provided for on a generous scale.

We envisage that in addition to the present expenditure, an approximate annual average recurring expenditure of Rs. 70 per student per year will be required for putting the Scheme of General Education into operation and we recommend that financial aid on this scale be given to as many colleges and universities as are willing to adopt the measures suggested in our report.

COMMITTEE ON PROBLEMS OF RE-ORGANISATION, 1955—REPORT

Delhi, Planning Commission, 1959. 171-226p.

(Bounded with the Committee on Tenancy Reforms, and the Committee on Size of Holdings under the title of The Reports of the Committees of Panel on Land Reforms.) Total 226p.+xp.

Convenor : Prof. D. R. Gadgil.

Members : Prof. D. G. Karve; Shri H. D. Malaviya; Shri Jugat Ram Dave; Shri Lal Singh; Shri Loke Nath Mishra; Shri Narsingha Rao; Dr. Pramatha Nath Bannerji; Dr. Radha Kumud Mookerji.

APPOINTMENT

The Committee on Problems of Re-organisation was constituted under the Planning Commission by the Panel on Land Reforms on June 4, 1955.

TERMS OF REFERENCE

To make recommendations on:

- (i) Co-operative farming;
- (ii) Co-operative village management;
- (iii) Consolidation of holdings; and
- (iv) Land management legislation.

CONTENTS

Introduction; Co-operative Farming; Co-operative Village Management; Land Management Legislation; Administrative Machinery for Land Reforms; Annexures I and II.

RECOMMENDATIONS

Co-operative Farming

The first recommendation we have to make is that on lands such as surplus lands which become available on the imposition of ceilings, Government waste lands, considered suitable for cultivation, land reclaimed through public effort and land periodically let out by the Government, wherever they are available in sizable areas, co-operative farms should be organised. As a rule, these lands should be settled with co-operatives and individual rights should not be created in them. The tribal areas where the notions of communal ownership still persist in some degree also offer a good field for co-operative experiments.

The lands already under cultivation consist of :

- (i) Holdings below the floor limit;
- (ii) Holdings between the floor limit and the ceiling; and
- (iii) Holdings above the ceiling.

Ordinarily, holdings below the floor limit cannot be cultivated profitably. The object we have in view is that steadily increasing proposition of holdings below the floor limit should be brought into the co-operative pool. As a first step we suggest that the surplus land obtained on imposition of ceiling and other lands available in a village with the Government should be regrouped into a compact unit or units. These lands should constitute the nucleus for co-operative farming. The displaced tenants, the cultivators below the floor limit and the landless agricultural workers, who may be selected for settlement on these lands, will be admitted as members of the co-operative farm. The cultivators below the floor limit will be admitted as members provided they agree to put their lands into the pool. It is not necessary that the whole of this area should constitute a single co-operative farm. Depending upon the size of the optimum or minimum area that may be necessary for co-operative farming, the pooled area could be divided so as to constitute more than one co-operative farm.

The farms below the floor limit, which stay out of a co-operative farm at the commencement, should be located contiguously to the pooled area as part of the operations of consolidation of holdings to enable them to join the co-operative farm at a later date. A deliberate effort should be made to develop intensive co-operative activity on these farms. In the early stages it may take the form of co-operation in ancillary activities, such as credit, marketing, supplies, etc., leading on to joint cultivation at a somewhat later stage.

The terms and conditions on which lands may be pooled and the mode of co-operative management have a considerable bearing on the progress of co-operative farming. As regards the method of pooling of land, the following different forms were considered by the Committee:

(1) The ownership of land may be retained by individuals but the land may be managed as one unit, the owners being compensated through some form of ownership dividend;

(2) The land may be leased to the co-operative society for a period, the owners being paid agreed rents or rents prescribed by law; or

(3) Ownership may be transferred to the co-operative

society but shares representing the value of land may be given to individuals.

As the surplus and other governmental lands will be settled with co-operative groups and not with individuals, no difficulty regarding pooling of land would arise in their case. With regard to lands pooled by individuals, on the basis of experience available so far, it is not possible to recommend any particular method and we suggest that at this stage no rigid conditions need be prescribed and the various alternative forms mentioned above may be tried out.

The adoption of any particular mode of management will depend on the technique of farming that may be applied and the degree of co-operation which has developed among the members. Each co-operative farm will adopt the mode of management which suits it best according to its own circumstances. We suggest that at this stage all the various methods may be tried, till suitable techniques of co-operative management are fully established by experience. Where lands are allotted to individual families for all agricultural operations or merely for subsidiary operations, it should be ensured that vested interests are not created and attachment to any particular plot of land does not develop. Provision should, therefore, be made for the redistribution of plots among the members from time to time.

We recommend that immediate steps should be taken to organise, on a large scale, planned experiments in co-operative farming in various crop regions of the country. These experiments may be located in areas of colonisation and in community project areas and national extension areas. It will also be an advantage, if some of the experiments are located around existing non-official institutions for social welfare work where the participation and guidance of trained social workers could be more easily obtained.

Each State may set up a small Committee at the State headquarters with the Minister of Co-operation as its Chairman. Its members may consist of persons with a faith in the philosophy of co-operation and experience in the methods of co-operation. It should be assisted by an officer whose special charge should be to organise co-operative farming in the State. The planned experiments should be worked under the direct supervision of this Committee. For creating necessary psychological atmosphere and mobilising public opinion, the co-operation of non-official organisations working in the social and political fields is indispensable. In the selected areas seminars should be organised at which intensive discussions may be held on the advantages of and problems presented by co-operative farming.

Each co-operative farm will need the assistance of a properly trained manager. Wherever possible, these managers should be selected from amongst experienced cultivators who possess a broad social outlook. The

managers will need training in the management of large farms, maintenance of accounts and above all securing people's co-operation and participation. We suggest that an adequate number of training centres should immediately be set up and steps taken for the selection of suitable hands taking into consideration the needs over the next five years.

At this stage of development we would hesitate to recommend any firm targets for the country as a whole. We suggest that each State Government should formulate its programme in the light of its own circumstances. These programmes should be so framed that over the next 10 years a substantial portion of the area can be brought under co-operative farming.

We suggest that the following facilities should be offered by the State to co-operative farms:

(i) Credit from the Government or from co-operative agencies and preference generally in financial assistance from the government for approved agricultural programmes;

(ii) Preference against the available stock in the supply of improved seed, fertilisers and materials for local construction;

(iii) Facilities for consolidation of lands comprised in a co-operative farm;

(iv) Preference in grant of leases of lands reclaimed by the Government, culturable waste lands, lands whose management is assured by the Government and lands under the management of the Village Panchayats;

(v) Provision that after a co-operative farming society is formed and so long as it continues and is managed in accordance with the conditions prescribed under the law, no new rights adverse to the interest of its members will accrue. Where land is held by the tenants with permanent rights, it is for them to elect to become members of a co-operative farming society. Owners of these lands cannot elect to pool their lands in a co-operative farm. In respect of lands under the cultivation of a tenant who does not possess permanent rights, an owner may join a co-operative farming society if the tenant is also agreeable to becoming a member of the co-operative farm;

(vi) Reduction of land revenue for a period;

(vii) Reduction of or exemption from agricultural income tax, if any;

(viii) Technical assistance of expert personnel employed by the Government in farm operations, marketing, preparation of production programmes, etc.;

(ix) Technical or financial assistance in developing non-agricultural employment for members of the co-operative farming society and others associated with them, such as in cottage industries, dairying and horticulture, etc.; and

(x) Subsidy for managerial expenses.

It has been observed that sometimes fraudulent

societies are formed by large and middle owners with a view to getting certain advantages or to evading the provisions of land reform laws. We suggest that provision should be made to prevent such evasions by providing that a co-operative farm will be registered only if the Registrar is satisfied that the bulk of the labour for the farm will be provided by its members.

Co-operative Village Management

The aim should be to enlarge the co-operative sector till the entire farm land in the village is comprised in co-operative farming societies.

The main instruments for realising co-operative village management are:

(a) The Village Panchayat and the functions assigned to it as a development agency at the village level;

(b) Measures taken to develop co-operative credit, marketing, warehousing, processing, etc.;

(c) Programmes for the development of village industries specially for meeting local needs and offering work opportunities to all persons in the villages;

(d) Programmes for promoting and assisting voluntary co-operative farming societies; and

(e) Development of a "community sector", within the village economy, that is, of land belonging to the village community as a whole (such as common lands, gifted lands, sites, etc.) and activities organised for the village as a whole.

These various activities supplement one another, but their total effect is to emphasise the responsibility of the village community as such for the development of its resources, including land, in the interest of all those who belong to it, without regard to whether they are or are not owners of land.

Consolidation Of Holdings

We recommend that all State Governments should be asked to draw up phased programmes for taking up consolidation work on a large scale during the Second Five Year Plan. We would, however, like to draw attention to one obstacle which may hamper the programme. In some parts of the country, considerable areas are held by tenants-at-will. In such areas consolidation of holdings would be largely a waste of effort and it would be desirable to undertake tenancy legislation before consolidation is taken up. Consolidation facilitates cultivation. The land in which permanent rights are conferred on the tenants should, therefore, be included in their holdings and excluded from owners' holdings.

Land Management Legislation

We regard land management legislation as an instrument of a policy for the progressive improvement of agricultural standards. We agree with the observations of the Sub-Committee that each cultivator should be

under a social obligation to maintain a reasonable standard of efficient production and the object of land management legislation is to provide the necessary incentives and sanctions for the performance of this duty. The measure cannot however be regarded (merely as a means of coercion) in isolation from (other) factors which are essential for the maintenance of efficient production. The prescription of standard should necessarily be linked with the fulfilment of certain prerequisite conditions, such as suitability of tenure, consolidation of holdings, progressive development of co-operation in various spheres of agricultural activity and increasing State assistance in the provision of financial resources and technical guidance and supplies.

As recommended by the Sub-Committee, provision should also be made for sanctions in the following cases:

(i) Cultivable waste lands held by large and medium holders, which are not brought under cultivation within a reasonable period, should be taken over under State management and arrangements made for reclamation and cultivation. Where cultivable waste lands held by small holders are not reclaimed with a reasonable period, the State should make arrangements for reclamation and recover the cost from them in suitable instalments.

(ii) With regard to measures relating to levelling, bunding and fencing, where necessary, provision of irrigation facilities and maintenance of irrigation channels, control of insects and diseases and eradication of weeds and terracing of fields, it is suggested that in case the cultivator fails to fulfil the necessary obligations, the State may carry out the work and recover the cost from the cultivator concerned along with a surcharge which may be up to 25 per cent of the cost.

(iii) Where a cultivator cannot be persuaded, after all needed assistance and instructions have been provided, to use improved seeds, or make compost of farm refuse, provision for a small fine may be made.

We recommend that land management legislation should apply to all farms. Till sufficient experience has however been gained and adequate administrative machinery has been built up, we would suggest the enforcement of standards, in the first instance, in selected National Extension and Community Project areas in each State.

Administrative Machinery For Land Reforms

We recommend that in areas where they have not already been set up the establishment of Village Panchayats should be expedited.

Financial Resources

One of the most serious handicaps from which the existing Village Panchayats suffer is lack of adequate financial resources. We would suggest that provision for financial resources for the Village Panchayats should include:

(i) A basic grant which should not be less than 20 per cent of the land revenue with an additional grant up to 15 per cent subject to the condition that the Village Panchayat finds matching resources,

(ii) The imposition of an additional local rent or cess for meeting the recurring costs of institutions such as schools and other development schemes;

(iii) Income from common lands;

(iv) Income from allotment of house sites or lands for the purposes of cultivation;

(v) Income from public markets and ferries;

(vi) A commission for collection of land revenue or other Government dues where this is entrusted to them;

(vii) A tax on trade, professions and callings;

(viii) Free labour for works of improvement;

(ix) Income from land set apart as a result of consolidation of holdings for cultivation through the village community; and

(x) Income from business activities undertaken on a co-operative basis by the Village Panchayat.

Staff

We recommend that the Government should set up training centres for the education and training of the staff required for the Village Panchayat and appointments should be made from among the qualified candidates where they are available. Regarding the strength of the staff of Village Panchayats or their terms and conditions no general conditions can be laid down. Arrangements will have to be made according to local needs and resources. The panchayats may appoint part-time or whole-time secretaries according to local conditions and availability of funds.

Composition Of Village Panchayats

As a general principle there should be a village panchayat for each village.

Where multi-village organisations have been set up already, they may at this stage continue to be treated as the primary organisational units.

It has been suggested in this connection that provision should be made for nominations of suitable persons as members of the Village Panchayats. This proposal, however, is likely to lead to serious difficulties. The Collector of a district or a Sub-Divisional Officer does not possess the necessary knowledge about the inhabitants of the hundreds of villages under his charge. Nomination will, therefore, have to be left, in substance, if not in name, to lower officials with the likely result that unsuitable persons may be nominated in a number of cases. Besides a combination of elected and nominated members will not make for smooth working and it may tend to weaken the sense of democratic responsibility among the elected representatives.

Efforts should be made to ensure that elections to

the Village Panchayat are made as far as possible by the general consent of the people and the bitterness and hostility created by election campaigns is avoided.

Gradation Of Village Panchayat

The Congress Village Panchayat Committee which has made a detailed and comprehensive study of the subject suggested that the Panchayats should be classified into three grades, namely, A, B and C. The Tenancy Committee has supported the suggestion. In classifying the Panchayats their experience and ability would naturally be taken into account. Where the Panchayat has been elected on a unanimous basis by genuine and spontaneous agreement, this may also be considered as a significant factor for purposes of gradation. Panchayats which are placed in Grade "A" may be given all the duties listed below. The other Panchayats may be classed in Grade "B" or "C" according to their experience and ability and given less wide powers in the first instance. Effort should be made by providing the necessary training and financial support to enable the Panchayats of lower grades to qualify for higher powers.

Judicial Panchayats

We agree with the recommendation of the Congress Village Panchayat Committee that each village community should elect a panel of five members to work on the Judicial Panchayats, which would thus have about 30 members elected from a few villages. Cases should be heard in the village itself in an atmosphere of informality by a Bench of five (drawn from different villages) by a system of rotation. The Judicial Panchayats should also be graded as suggested with regard to the Village Panchayats. Judicial Panchayats of Grade A may be entrusted with the judicial functions contained in the following list while others may be given less wide powers in the first instance.

The judicial functions may be classified as below:

- (1) Decision of disputes regarding land;
- (2) Effecting transfers of land;
- (3) Administration of civil and criminal justice; and
- (4) Enforcement of minimum wages for agricultural labourers.

With regard to item (1), the Tenancy Committee has drawn up a list of disputes regarding land which should be dealt with by Judicial Panchayats. We are in agreement with the recommendations of the Tenancy Committee.

With regard to item 2, the Tenancy Committee has recommended that transfers should not be made by private contract between individuals. They should be made through Village Panchayats at regulated prices and according to an order of preference which should be prescribed by law or rules. In agreement with the Tenancy Committee we would recommend that the

price of lands which are to be transferred should be determined by the Judicial Panchayat, while the actual transfer be effected through the Village Panchayat.

With regard to items 3 and 4, the Land Reform Panel is not concerned directly. We have, however, included them in the list to make it comprehensive. With regard to the administration of civil and criminal justice we would suggest that a list may be drawn up indicating the nature of cases which can be made over to the Judicial Panchayat.

Functions

The functions which may be entrusted to the village organisation may be classified as below:

Administrative Functions

Management Of Land

(1) Association with the work of maintenance of land records;

(2) Making leases of land in all cases where the owner is unable to cultivate the land himself and desires that it may be let out for cultivation;

(3) Regulation of the use of common lands such as waste lands, forests, *abadi* sites, tanks, etc.;

(4) Allotment of *abadi* sites; housing condition of Harijans and others, the layout of village sites;

(5) Allotment of cultivable lands for agricultural purposes;

(6) Allotment of land for non-agricultural use;

(7) Adaptation of the standards of good management and cultivation to local conditions;

(8) Inspection and judgment whether the standards of good management and cultivation have been fulfilled and whether the classification of farms has been done according to their efficiency;

(9) Enforcement of standards;

(10) Collection of land revenue.

Development

(11) Development of common lands, such as waste lands, forests, *abadi* sites, tanks, etc., including measures against soil erosion.

(12) Organisation of mutual aid and joint effort;

(13) Promotion of co-operative societies, such as rural credit, marketing, etc.;

(14) Promotion of co-operative farming societies;

(15) Framing programmes of development for the village;

(16) Framing budget of requirements for supply and finance for carrying out programmes;

(17) Acting as the channel through which increasing Government assistance (other than the assistance given through agencies like co-operatives) reaches the village;

(18) Organising voluntary labour for community works;

- (19) Improvement of livestock;
- (20) Construction, repair and maintenance of public wells, tanks and ponds;
- (21) Development of village industries.

Civil And Administrative Functions

- (22) Education, culture and sports;
- (23) Medical relief, sanitation and hygiene, and maternity and child welfare and relief to the poor;
- (24) Registration of births, deaths and marriages;
- (25) Construction, repair and maintenance, cleaning and lighting of public streets; removal of encroachments from public streets, construction or maintenance of culverts and bridges;
- (26) Regulation of Melas and fairs;
- (27) Rendering assistance in extinguishing fires and protecting life and property when fires occur;
- (28) Maintenance of records of cattle census, population census and other statistics;
- (29) Watch and Ward.

Land Reform Functions

- (30) Determination of land to be allotted to the owner in exercise of his right of resumption and the land to be left with the tenant;
- (31) Association with the determination of surplus land (arising from legislation for ceilings);
- (32) Association with the redistribution of surplus land (arising from legislation for ceilings); and
- (33) Association with the work of consolidation of holdings.

Item 1: The correct maintenance of land records is absolutely essential for the effective implementation of land reform measures. The Tenancy Committee has recommended that all Village Panchayats, of whatever grade, should be associated with the preparation and maintenance of land records and has made suggestions in detail in this respect, with which we agree.

Item 2: The Tenancy Committee has recommended that in order to prevent rackrenting of tenants or sub-tenants and to provide for a degree of flexibility in the land system (so that it may be possible for land-owners who wish to seek alternative occupation in the urban areas to lease their lands temporarily and on return to the village to get back their lands for cultivation and further to ensure that tenants are not rendered landless), leases of land should be made by the Village Panchayat. General principles for the guidance of the executive of the village, i.e. the Village Panchayat, should be laid down by the assembly of the village people as a whole within the framework of the law and the rules on the subject.

Items 3—6: The Sub-Committee is of the view that the management of common lands and *abadi* sites, etc., and allotment of *abadi* sites for house building and of

plots of land to individuals for cultivation or non-agricultural use should be entrusted to the Village Panchayats so that the common lands may be utilised and developed for the benefit of the village community as a whole. It is understood that in the discharge of these functions as well as others, the Village Panchayat will be required to act in accordance with the State plans or directions and the provisions of the law and rules on the subject.

Items 8—10: The question relating to land management legislation, the fixing of standards of efficient cultivation and management, the procedure and methods for their enforcement and the sanctions to be applied have been examined in detail by the Sub-Committee on Land Management. This committee is concerned with the question of the agency to be employed for the enforcement of these standards. The Reorganisation Committee has decided that the village body should be the pivot of land management legislation, responsible for the adaptation of the standards to the conditions in the village, the classification of various grades, drawing up of phased programmes for development giving directions and supplying the necessary assistance and financial resources. In certain cases provision has been made for punitive action, i.e. assumption or management by the State increases where a substantial or medium holder fails to reclaim cultivable waste, the State undertaking certain items of work on the failure of the cultivator to perform them and the imposition of fines in a few cases. In such cases the cultivator concerned should have a right of appeal to a higher authority. The establishment of such higher authorities is dealt with in the sequel.

Item 11: Wherever the Village Panchayats possess the necessary ability, the responsibility for collecting land revenue may be made over to them on payment of suitable remuneration in the form of a percentage of the revenue collected.

Items 12—22: These should necessarily be dealt with by the Village Panchayats.

Items 23—30: The Land Reform Panel is not concerned with these items which have been included in the list to make it comprehensive. The list is based upon duties which have already been entrusted to Village Panchayats in a number of States.

Item 31: The Sub-Committee is of the view that the Village Panchayats should be entrusted with the determination of land to be allotted to the owner in exercise of his right of resumption and the land to be left with the tenant. The work would necessarily have to be done in accordance with the provisions of the law and rules, but some degree of flexibility may be provided so that the Village Panchayat may be able to make necessary adjustments between the interests of the owners and the tenants.

Item 32: In order to ensure that owners of land above the ceiling do not escape the provisions of the law, the Village Panchayat should be entrusted with the duty of checking up such cases and reporting contravention of the law to the revenue courts.

Item 33: The Village Panchayats should be associated with the redistribution of surplus lands, but their recommendations should be subject to confirmation by the official agency.

Item 34: The Sub-Committee is of the view that the Village Panchayat should be associated with the work of consolidation of holdings so that it may be carried out smoothly and complaints and grievances of the cultivators may be minimised. Where the Consolidation Officer disagrees with the suggestions of the Village Panchayat a reference may be made to a higher consolidation authority.

Sub-Committees

We have referred earlier to the appointment of sub-committees in cases where Village Panchayats have a circle extending over more than one village. The functions to be entrusted to these committees would include Items 1 to 7 and 31 to 34.

Higher Units Of Administration

We suggest as an immediate measure the formation of representative bodies at the District level and Tehsil/Taluka or Development Block level.

It is proposed that every district should have a District Development Council composed as follows:

(1) Representatives of the district in the State Legislature and in Parliament;

(2) Representatives of Municipal Committees and rural local bodies, (say, 10 in number);

(3) Representatives of the co-operative movement (say, 4 in number);

(4) Representatives of Village Panchayats (say, 10 in number);

(5) Co-opted members from leading social service agencies, constructive social workers and educational institutions (say, 6 in number);

(6) The Collector and district officials in charge of various development departments.

It may be convenient at this stage for the Collector to be the Chairman of the District Development Council.

At the Tehsil/Taluka Development Block, there should be Development Committees which may be composed as follows:

(1) Representatives of the area in the State Legislature and in Parliament;

(2) Representatives of all urban local bodies and the Taluka Board or members of the District Board from the area (say, 8 in number);

(3) Representatives of the co-operative movement (say, 15 in number);

(4) Representatives of the Village Panchayats (say, 15 in number);

(5) Co-opted members from leading social service agencies, constructive social workers and educational institutions (say, 6 in number);

(6) Officials-in-charge of development departments.

A fairly senior officer below the rank of Collector, such as a Sub-Divisional Officer, may, to begin with, be the Chairman of the Development Committee.

The representatives of various institutions would be elected by them in the manner prescribed by the State Governments in the light of local conditions.

It is desirable that the Tehsil/Taluka/Block Development Committee should be a statutory body with clearly defined authority and functions. Where, however, the circumstances in a State or region render this difficult, advisory functions may be given in the first instance.

The functions of District Development Councils would, in the earlier stages, be advisory.

More specifically, within their areas the functions of District Development Councils and Tehsil/Taluka/Block Development Committees may be set out as follows:

(1) To advise on the formation of each year's plan

of development within the general framework of the Five-Year Plan;

(2) To review progress in the implementation of approved programmes of development;

(3) To recommend measures for the effective and speedy fulfilment, with the maximum support from the people, of schemes of economic and social development and, more especially, of national extension and community projects, agricultural production programmes, local development works, social services, village and small industries;

(4) General supervision over the work of land reforms, land management and development by Village Panchayats;

(5) To promote public participation and co-operation in development programmes and to expand local community effort both in rural and in urban areas;

(6) To promote the Small Savings movement;

(7) To assist the development of co-operatives and Village Panchayats;

(8) To enlist the active association and co-operation of teachers and students in the study and development of local resources; and

(9) To provide opportunities for the education and training of members and Sarpanches of Village Panchayats.

COMMITTEE ON SIZE OF HOLDINGS, 1955—REPORT

New Delhi, Planning Commission, 1959. 95-170p.

(Bound with the Committee on Tenancy Reforms and Committee on Problems of Re-organisations, under the Title "Committees of the Panel on Land Reforms".) Total 226p.+xp.

Convenor : Prof. M. L. Dantwala.

Members : Shri H. D. Malaviya; Shri Lal Singh; Shri Narsingha Rao; Shri N. Prasada Rao; Dr. Radha Kumud Mookerji; Shri G. Sankaran Nair.

APPOINTMENT

The Committee on the Size of Holdings was constituted under the Planning Commission by the Panel on Land Reforms on June 4, 1955.

TERMS OF REFERENCE

(i) Reviewing the progress in the implementation of land policy proposed in the First Five-Year Plan; and

(ii) Studying further steps in connection with the Second Five-Year Plan.

CONTENTS

General; Appendix A; Minute of Dissent by Sardar Lal Singh, M.P.; A note by Dr. Radha Kumud Mookerji, M.P.; Minute of Dissent by Shri N. Prasada Rao, M.P.

RECOMMENDATIONS

General

The Committee unanimously accepted the principle that there should be an absolute limit to the amount of land which any individual may hold.

The policy of imposition of ceiling would be able to

make a contribution towards fulfilling the following objectives:

- (i) Meeting the widespread desire to possess land;
- (ii) Reducing glaring inequalities in ownership and use of land;
- (iii) Reducing inequalities in agricultural incomes; and
- (iv) Enlarging the sphere of self-employment.

The Committee wished to emphasise that the principle of ceiling should be applied to other sectors of economy also with due regard to the conditions prevailing in those sectors. Though the principle of applying it specially to agriculture could be justified on several grounds, it was felt that if the State would announce its policy of application of ceilings to other sectors of the economy as well, imposition of ceiling on agricultural lands would meet with less opposition and there would be greater chances of its proving successful.

Area Of Application Of Ceiling

On the assumption that in respect of leased lands, positive steps will be taken to enable the tenants to become owners within a reasonable period, the Committee recommend that the ceiling should apply to owned land under personal cultivation. In determining the area under personal cultivation, all uncultivated but cultivable lands not leased to tenants should be taken into account. Land taken on lease but not liable to resumption and land given on lease but liable to resumption should be taken into account for the purposes of ceiling.

Level Of Ceiling

We have examined the question whether in applying ceiling, the aggregate area held by all the members of a family should be taken into account or whether the land held by an individual member of a family should be regarded as constituting a separate holding for purposes of ceilings. We are of the view that family is the real operative unit in land ownership as in land management. We therefore recommend that in the fixing of the ceiling, the aggregate area held by all the members of a family should be taken into account. For this purpose, a family should be deemed to consist of husband, wife and dependent sons and daughters and grand-children. Land held by married daughters and earning sons should be excluded. Where the property has already devolved on two or more heirs after the death of the parents but the property has been held in common by them, undivided, the share of each heir should be regarded as a separate holding.

Mala Fide Transfers

It has been brought to our notice that anticipating imposition of ceilings, substantial owners are making benami transactions in favour of near relations and

friends to bring their holdings within assumed limits. If such transfers are allowed, they will defeat the very object of imposition of ceilings. We would therefore recommend that any transfer or lease made after a given date should be disregarded in determining the surplus area.

The date could be fixed by each State Government in the light of its own circumstances.

Acquisition Of The Surplus; And Compensation And Method Of Financing

The next question was to decide

- (1) Whether the surplus land should be acquired by the State and distributed to the claimants according to some prescribed priority;
- (2) Whether it should be requisitioned and tenants settled on it; or
- (3) Whether the land owners should be asked to lease out the surplus to tenants of their own choice.

The adoption of the third course, namely, permitting the land owners to lease out the surplus lands may result in malpractices, benami transactions and even extortion of money by the land owners from the tenants to be settled by them. It may also raise same constitutional difficulties. We do not therefore favour this course. If the surplus is acquired, the question of compensation and the mode of payment will arise. If however the surplus is merely requisitioned, the tenants could continue to pay the rent either directly to the land owners or to the State. The following alternative methods, some of which are already in existence, were mentioned:

(1) In a number of States, legislative provisions exist empowering the State Government to arrange for the cultivation of lands which have been allowed to remain uncultivated without a reasonable cause for a period of over two or three years. In such cases, the State Government has the power to admit a tenant to the land. Generally the tenant has the same right as if he has been admitted by the landlord.

If this alternative was adopted, the State Government would settle the surplus land with a tenant, who would have permanent and heritable rights and would be liable to pay rent.

(2) The land could be settled with a tenant who would have permanent and heritable rights and also the right...voluntarily to purchase the land at a reasonable price. The State could make the necessary provision for financial assistance to the tenant to facilitate purchase of land.

In both the alternatives, mentioned above, the State Government would not acquire ownership of the surplus land immediately. In alternative (1), the land owner would remain the owner indefinitely. In alternative (2) the landlord would remain the owner until the tenant purchases his right. In alternative (3), the State acquires ownership of the surplus land immediately and becomes

responsible for the payment of compensation. The compensation could be paid in one of the two ways:

(i) The person who is admitted as tenant pays rent to the State Government and the State Government finances the compensation out of its increased revenue;

(ii) The person who is admitted to the land pays annual land revenue to the State and, in addition, he pays instalments of the compensation over a number of years.

There were distinct differences in views on this issue. The Committee however favours the adoption of the following methods:

(i) The surplus land should be acquired. When the surplus is distributed, the recipients should become direct tenants. They should pay fair rent to the State as long as it may be necessary to enable the State to pay the compensation money to the land owner.

(ii) The amount of compensation should in no case be more than 25 per cent of the market value and should not exceed (inclusive of interest charges) the aggregate of the increase in land revenues for 20 years. The increase in land revenue will be due to the fact that the State will be receiving fair rent from the new settlers on the surplus land which will be more than the land revenue paid by the ex-owner.

(iii) The compensation may be paid in bonds redeemable in about 20 years.

(iv) After, say, 20 years' payment of fair rent, the recipient should be declared to be a full-fledged owner, after which he will be liable to pay no more than the prevailing land revenue.

Exemptions

Following categories, which could possibly qualify for exemption, were listed:

- (1) Plantations—Tea, coffee, rubber;
- (2) Sugarcane farms owned by sugar factories;
- (3) Orchards;
- (4) Special farms such as cattle-breeding, dairy farms, sheep-breeding farms, etc.;
- (5) Farms in a compact block;
- (6) Efficient farms;
- (7) Mechanised farms and farms with heavy investment.

Plantations

It was agreed that the ceiling was not an appropriate measure of reform for plantation. Other measures suggested were—strict enforcement of minimum wages, steep agricultural income tax, State acquisition and subsequent co-operative management was favoured by many. Attention was drawn to large areas within plantations which were leased out to tenants for growing seasonal crops. It was agreed that the question of tenancy rights and ceiling in respect of such lands should be considered

in the light of the recommendations of the Plantation Enquiry Commission.

Sugarcane Farms

The unanimous view was that these do not qualify for exemption. How these farms should be operated after the ceiling is enforced needs to be considered; in particular, the question of running them as integrated co-operative farms should be investigated.

Orchards

The Committee are of the view that existing orchards should not be broken up if situated within a reasonably compact area, but the area under them should be taken into consideration for calculating the permissible area under the ceiling. If, as a result, no other land was left for the owner, a basic holding may be permitted in addition to the orchards.

Where orchards are taken over, it should be ensured that they are not cut down and are maintained as orchards.

Cattle-Breeding, Dairy, Wool-Raising Farms

We favour exemption for bona fide farms of the above type, as certified by the Government. Exemption is intended for existing farms of the type and not for contemplated future use.

Compact, Well-Managed Mechanised Farms

All these categories were considered together. Except one member who advocated State acquisition, others favoured exemption of the highly efficiently managed farms which consist of compact blocks, and on which heavy investment for permanent structural improvements has been made. Subsequent to exemption, they will be subject to special responsibilities and obligations, such as conforming to the highest possible standard of efficiency, use of improved practices, payment of minimum wages to labourers, right of State to use them as experimental or demonstration farms, acquisition of crops (produce) by State at reasonable prices.

Distribution Of Surplus

The question of re-distribution is however linked with the question of re-organisation of agriculture. We are informed that the Committee on Problems of Re-organisation has taken the view that the surplus should be settled on co-operative basis. We would therefore defer making any recommendation on this matter.

Floors

While the policy of imposition of ceilings has reference to the problem of distributive justice, imposition of a floor limit is the outcome of the need for national layout of land surface and efficient productive organisa-

tion. Land is a scarce resource and the nation cannot afford its wasteful use. None of the problems of inadequate or disproportionate equipment, of backward technique and inefficiency, of underemployment and wasted labour, of poverty and exploitation can be solved as long as the bulk of farming units are small. The concept of floor, thus, derives its imperativeness from the supreme need of operational efficiency rather than from the need to secure minimum income. It therefore implies that no production unit should be smaller than the minimum necessary for good agriculture. If even this unit is too large for the country to be able to provide to every individual cultivator, rather than partitioning the unit and distributing parcels to individual cultivators, the cultivators should be persuaded to come together and practise group or co-operative farming.

The Committee could not achieve unanimity in approaching this problem. Though several members favoured imposition of a floor, say, at one-third of the economic holding as in the Hyderabad legislation, others felt that blanket injunction against individual cultivation of the below-floor farms would unduly restrict the already limited opportunities for owning land and will keep out a large number of the landless from becoming owners. In the distribution of the surplus also, if a minimum floor limit is imposed, the number benefiting

from the distribution would be restricted. These members, therefore, opposed any rigid adherence to the concept of the floor.

Imposition of floor has a meaning only if all farms below the floor are grouped in a compact block of what may be called a co-operative sector. Varying degrees of co-operative working may be introduced—from credit and marketing to joint cultivation according to the preparedness of the participants. To make participation in this sector attractive the surplus from the imposition of ceilings may be transferred to it. Of course, the displaced tenants, attached workers and the landless (if so decided) will have to be provided on it. It is evident that this sort of reorganisation and realignment is possible only if a scheme of consolidation of holdings for re-designing of the lay out is introduced as a part of ceiling-floor policy.

Regarding the level of floor (those who were in favour of imposing such a limit) some recommended one-third, others one-half, while two members held the view that the floor and the economic level should be the same. However, if the imposition of floor is to result in some sort of re-organisation as suggested above, the effective limit will be organisational, i.e. the Government's capacity to organise the co-operative sectors.

COMMITTEE ON TENANCY REFORMS, 1955—REPORT

New Delhi, Planning Commission, 1959. 1-94p.
(Bound with the Committee on Size of Holdings and Committee on Problems of Re-organisation under the Title of Reports of the Committees of the Panel on Land Reforms.) Total 226p.+xp.

Convenor : Shri R. K. Patil.

Members : Shri G. Sankaran Nair, Shri Loke Nath Mishra; Shri N. Prasada Rao; Shri Shriman Narain; Shri H. D. Malaviya; Dr. P. N. Banerjee.

APPOINTMENT

The Committee on Tenancy Reforms was constituted under the Planning Commission by the Panel on Land Reforms on June 4, 1955.

TERMS OF REFERENCE

(i) Reviewing the progress made in the implementation of the policy proposed in the First Five-Year Plan; and

(ii) Recommending further steps in connection with the Second Five-Year Plan.

CONTENTS

Preface; Part I—Progress (Introduction, Land Policy in the First Five-Year Plan; Abolition of Intermediaries; Progress of Tenancy Reforms; A Critical Review); Part II—Recommendations (some Fundamental Considerations, Abolition of Intermediaries; Rights of Owners of Land; Tenancy Reforms, Administrative Agency); Annexures I to VI.

RECOMMENDATIONS

Some Fundamental Considerations

As it is our object to transform rural society by

peaceful and democratic means, a certain amount of gradualness is necessary and desirable. It is necessary to obtain wide acceptance and common consent for each step that is taken, which in its turn acts as a process of social education for the next. A period of transition is, however, exposed to some dangers. Progressive change may cause a feeling of insecurity and may give an opportunity to the more powerful sections to anticipate further change and make its implementation difficult. These difficulties have to be taken into account in any proposals for land reforms and the pace and direction of social change carefully adjusted to avoid them. It is, for instance, apparent that large land-holders have come to realise that they cannot for long continue to enjoy the rights that they now possess.

And what is more, we do not consider it easy, by any steps which the Government might take, to restore the feeling that the landlords had in the past that their property rights were not liable to be affected by any sudden or immediate change. The circumstances and the atmosphere are against it. Even if the Government were to make a declaration of the inviolability of such holdings, such a declaration cannot bind future Governments, and the prevailing atmosphere indicates that a future Government is bound to impose a ceiling even if the present Government does not do so.

A complementary aspect of the same question is the expectation raised in the minds of the landless population of obtaining a higher social status, greater security and means of employment and the hope of receiving land through some manner of redistribution. The Bhootan Movement has strengthened the demand for land. Our ideas of social justice are being progressively enlarged and they are bound to become increasingly larger with the passage of time. Unless, therefore, there appears to be a reasonable possibility of providing employment for a large number of the landless population in other non-farm occupations in any reasonable period of time, this demand for land is likely to increase in volume and intensity and assume the form of a mass movement in a short time.

Increase in personal cultivation as distinguished from cultivation through hired labourers must be an important objective of land reform. It goes without saying that other things being equal, a personally cultivated holding is likely to yield more than the one cultivated through hired labour. The advantages to the State of a hard-working, contented and prosperous peasantry working on the land are considerable. It is their purchasing power which will influence increased production of industrial goods, and thus help industrialisation. The ownership of land, besides conferring security and social status on its possession, also provides an opportunity for self-employment and it should be an objective of land policy to increase this sector up to the limit where

holdings become so small that these advantages begin to be counter-balanced by other disadvantages.

All proposals for land reforms should aim at establishing such a new pattern of landownership and cultivation that it will have in it the germs of future development. And the next step in land should be such as clearly lays bare the final pattern of landholding involved in the significant expression "land to the tiller". The element of uncertainty should be reduced and the landowning classes including both the small and the large holders should know precisely where they stand. The position of tenants should be established and rendered secure. It is of importance that all proposals for land reforms must carry conviction to all concerned with the holding of land that they are final and unlikely to be disturbed for any reasonable length of time. It is this atmosphere that induces development and it must be our concern to restore it.

One of our most urgent problems is the provision of additional opportunities for employment to those who are engaged on land today whether as landowners, tenants or agricultural labourers. The fundamental cause of our poverty is our inability to utilise fully the labour potential of the bulk of the people who are today engaged on land. In so far as agriculture is a seasonal occupation, even a large holding is ineffective in increasing the period of employment. More employment outside the agricultural season must, therefore, be found by (1) development works and (2) development of village industries. There is also considerable scope for a good deal of development work on the land itself. Soil erosion is our chief technological problem today, and if soil is to be conserved, land will have to be terraced, bunded and afforested. Irrigation sources will have to be developed and where there is no scope for collecting rain-water, wells will have to be dug. A proper system of soil conservation includes all these items and a great deal of labour could be absorbed in all these operations. They would increase production, provide more employment on land and open the way for adoption of modern scientific agricultural practices. It is estimated that it requires about Rs. 90 worth of labour to conserve properly one acre of cotton land. This would give an idea of the scope for absorption of labour in soil conservation operations. The land is there, the surplus labour is there, the nation can afford the capital necessary to start this process of land development, and yet in spite of all these favourable factors, there are considerable difficulties in co-ordinating them and providing more employment on land.

The reason for this difficulty is quite obvious. Land today is divided in a series of fragments, each owned by a separate individual. Individually he has neither the resources nor the inclination to develop the land. Wage-paid employment to develop individual fragments is out

of the question. The other alternative is some sort of a co-operative effort by the landowners for this purpose. This is considerably handicapped by the various differences in the landownership pattern of the village community. Some have more land, some have less land and others have no land at all. It is clear that an effort at land development in the existing pattern of land-holding is bound to give differential returns to the various owners owning land in proportion to their ownership. The large holders will benefit more, the smaller holders less, and the landless not at all, except in an indirect way. It is this difficulty which prevents a large-scale effort at land development on the part of the village community.

But if land were owned by the whole village with an equal right to participate in its fruits, on the part of all those who are willing to labour on it, the case would be different. Everybody would have the same interest in developing the land and this should pave the way for a land army in each village working for the maximum produce from the land. Land resources and human resources would be fully co-ordinated without the interposition of any ownership rights or other differences separating them from one another.

The idea of the imposition of ceiling at three times the family holding has already been accepted in the First Five-Year Plan and we recommend that it should be brought into operation in all the States in India during the course of the Second Five-Year Plan. Thus, we would be creating a large body of small peasant proprietors and the pattern can be stabilised. (Future changes will then result only from the development of co-operative activities.)

Where the landless people belong to the Harijan caste this is an essential preliminary for the removal of untouchability itself. Existing disparities in ownership of land and agricultural incomes will, to a certain extent, be reduced. This will facilitate co-operation and rural progress and the State will have laid the fundamental basis for the establishment of a socialistic pattern of society.

Two objections have to be considered before such a course can be recommended for adoption all over the country. The first is economic and the second social. The economic objection can be stated thus: The giving of land in small holdings to a large number of landless persons would increase the number of diminutive holdings and, to that extent, reduce production in agriculture. Further, these small holdings being unable to attract capital, the land will progressively deteriorate and this would amount to living on our capital.

The imposition of a ceiling on land is in the national interest and, therefore, this step has to be followed.

The settling of the landless people on the land and providing them with some security in life is a human

problem the solution of which cannot now be delayed. This is the first step which must be taken so that a more homogeneous village community is produced which can come together for various objects of rural development. Co-operation in the village today is handicapped because of the various social and economic differences which beset village life. These come in the way of all co-operative activities. It is necessary to remove them and establish a more homogeneous and broad-based pattern capable of sustaining the rapid strides of national development which are taking place today.

Abolition Of Intermediaries

Abolition of intermediaries has been carried out in the bulk of the country and further legislative measures have to be taken only in some small areas which we have indicated. Abolition of intermediaries does not raise any controversial issues and its main features are well known. We recommend that the process should be completed as early as possible. In some States, it is possible that there may be some feeling that further land reform measures may be taken up when the question of reorganisation of States has been settled and there may perhaps be some reluctance to take up any controversial measure on account of the fact that the areas affected may be transferred to other States. We would, however, urge that this should not be regarded as an obstacle to the completion of the work because abolition of intermediaries has a well-known and common pattern and necessary action can and should be taken even before the re-organisation is complete.

We have mentioned that in a number of States, some of the main tasks consequent on the abolition of intermediaries have yet to be completed. While we are aware that the State Governments concerned are taking necessary action, we would urge that effort should be made to complete the various items of work as early as possible, referred to in Chapter III of Part I of this report particularly:

- (a) Cadastral survey and preparation of records wherever necessary;
- (b) Strengthening the agency for the maintenance of land records up-to-date;
- (c) Setting up of a suitable agency for collection of land revenue; and
- (d) Setting up of an agency for management of common lands acquired by the Government.

We consider that it is desirable to pay compensation as quickly as possible in cases where it has not been paid already. Where there are likely to be some delays in the determination of payment of compensation, interim compensation should be paid. Steps should be taken, in particular, to make the payments to small intermediaries and to the intermediaries who are widows or minors. A suggestion has been made to us that

there should be a ceiling on the amount of compensation payable to any intermediary. We suggest that this should be carefully considered and implemented if there are no constitutional or legal difficulties.

We recommend that action for the abolition of *mams* should be completed as early as possible on the basis of the general pattern for abolition of intermediaries.

Further, in an area where an owner of land in a village performs an important function like the maintenance of land records, the administration may be biased against the interests of other classes such as tenants. An owner who collects land revenue is likely to be a very powerful person and may, to that extent, tend to weaken the authority of the Village Panchayat. It is conceivable that functions relating to the revenue administration may be performed by Government servants on prescribed scales of pay or by a duly elected representative of the village community as a whole. But a system in which a landlord performs these functions, is inconsistent with our objectives. We, therefore, recommend that the organisation of services to the Government should be based on the normal footing as speedily as possible.

Rights Of Owners Of Land

With the abolition of intermediaries, the existing tenures may be broadly clarified into the following categories:

(1) Owners, i.e. the principal tenure holders such as occupant or raiyat or tenants-in-chief (in the former intermediary areas) who hold land directly under the State;

(2) Tenants, i.e. sub-tenants or tenants of an occupant or raiyat holding land from an owner either directly or through an intermediate tenure holder.

In any consideration of a comprehensive scheme of land reforms we have to take into account not only the quantum of rights which should be conferred upon the peasants in cultivating possession of land and the degree and nature of social control over these rights, but also the ultimate pattern of our social and economic institutions.

Steps have to be taken to rationalise our land system and to introduce a more or less uniform pattern throughout the country, allowing only for such variations as are justified by economic considerations rather than considerations of historical development. Denial of necessary rights or the conferment of excessive rights can both cause damage to the rural economy. A comprehensive view of this question should be taken so that the quantum of rights of owners is related to their economic functions and the interest of the community as a whole. They should have the rights which will give them the necessary psychological incentive and opportunities for increased agricultural production and

should have the obligations which would facilitate the maximum utilisation of land resources in the interest of the community.

(1) Inheritance: Inheritance is generally governed by personal law, but in some cases as, for instance, sirdars in U.P., a restricted table of devolution has been prescribed in order to prevent fragmentation of holdings. We consider that there is no need to make a distinction between inheritance of land and inheritance of other forms of property. The measures necessary to prevent excessive fragmentation will be examined in the sequel.

(2) Right of Transfer: The Committee recommend that transfers should be made through Village Panchayats at regulated prices (which should give adequate recompense to the transferor, and be also economic for the transferee) and according to an order of preference which should be prescribed by law. The aggregate of the land which the transferee may own (including the area already owned) should not exceed the area which a family can cultivate with their own labour and occasional hired labour to the extent customary. In cases where there are more applicants than one belonging to the same order or preference, who are willing to purchase the land at a regulated price, lots may be drawn.

(3) Right of Improvement: The Committee are of the view that an unrestricted right of improvement should be given.

(4) Right of Simple Mortgage: The Committee are of the view that all owners should have the right to make a simple mortgage to facilitate rural credit.

(5) Right of Mortgage with Possession: The Committee are of the view that the cultivators should not have the right of mortgage with possession, as it can be used to defeat the provisions for regulation of transfers and leases.

(6) Right of Letting: It would not be administratively possible to enforce a complete prohibition of letting. Besides, it would make the land system too rigid and would prevent the rural classes from taking up employment in urban areas.

(7) Right of Use: The cultivator should have the right to use land for agricultural purposes subject to the observance of standards of efficient cultivation. Use for non-agricultural purposes may also be permitted subject to the approval of the community.

(8) Right of Exchange: The right of exchange already exists in order that cultivators may exchange lands among themselves according to their needs. There is no objection to this right being allowed to owners where it does not obtain now.

(9) Right of Partition: We suggest that partition of land where it results in the creation of a fragment or in the breaking up of a holding which is already a fragment should be prohibited. The Village Panchayats should

in addition to the revenue agency be required to report cases of contravention and where the Village Panchayat is unable to persuade the co-tenure holders to cultivate their land on a co-operative basis, the land should be sold at a regulated price among the co-tenure holders. The co-tenure holders who do not purchase the land should be paid their share of the compensation.

(10) Recovery of Rent or Revenue: We consider that the provision for ejectment should be omitted and arrears of rent or revenue may be recovered by sale of the holding. Such sales should be subject to the same conditions as have been suggested above for voluntary transfers. Land of value equivalent to the rent or revenue should be sold but not in such a way as to create a fragment.

(11) Processes for Recovery of Arrears of Rent or Revenue: The processes for recovery of rent or revenue are generally similar in the various States and include (1) issue of writ of a demand, (2) sale of movable property, (3) sale of crops, (4) sale of the holding, (5) sale of other immovable property, and (6) arrest and detention of the defaulter.

The Committee is of the view that arrest or detention of the defaulter should be omitted from the processes of recovery. The other processes are quite adequate for the purpose.

(12) Rent in Kind: Under the intermediary system, there were some classes of tenants who paid rent in kind. On abolition, the State Governments have taken steps to commute such a rent into a fixed money rent as it is obviously inconvenient for the State to collect rent in kind.

(13) Principles Governing the Allotment of Waste Lands for Agricultural Purposes in (a) Rural Areas, and (b) Urban Areas: The procedure for allotment of such lands (for instance, by auction, to the highest bidder or by allotment either on an ad hoc basis or in accordance with a prescribed order of priority), the terms and conditions of the lease and the level of rents show considerable variations from State to State. The Committee are of the view that the procedure for such allotments and the rights and obligations of the allottees should be rationalised in the light of the objectives which have been mentioned earlier.

Tenancy Reforms

We recommend that pending the enactment of comprehensive legislation for tenancy reforms, the following steps should be taken in this direction with immediate effect :

(i) Ejectment of tenants or sub-tenants should be stayed. Ejectment on grounds of non-payment of rent or misuse of land may be permitted through the due processes of law.

(ii) Tenants who have been dispossessed of their lands

in recent years should be restored except where ejectments were made through the courts for non-payment of rent or misuse of land. "Voluntary surrenders" result mainly from the landlords' influence and the tenants' low bargaining power. All such surrenders should be treated as cases of ejectments and restoration provided for.

(iii) All tenants should come into direct relation with the State which should undertake the obligation to recover fair rents from the tenants and pay it to the landlord after deducting the cost of collection.

Security of Tenure: We do not favour the idea that security of tenure should be conferred only where long possession is established and we recommend that:

(1) A tenant who has already held any land continuously for a period of 12 years or is in possession of land which has not been cultivated by the land owner personally at any time during a period of 12 years should have permanent and heritable rights in the land and should not be liable to ejectment on any grounds whatsoever, not even on the ground that the landlord requires the land for personal cultivation.

(2) All other tenants should have security of tenure subject to the landlord's right to resume land bona fide for personal cultivation on terms and conditions described in the succeeding paragraphs.

Landlord's Right of Resumption: We recommend as follows :

(a) Every tenant should have a prior right to retain a family holding for personal cultivation. The family holding has been defined by the Size of Holdings Committee. In determining this area any land owned by him or held under permanent rights should be taken into consideration.

(b) The land held by a tenant in excess of a family holding may be resumed by the landlord for personal cultivation subject to the limit of a family holding.

(c) Any land held by a tenant which he is not entitled to retain and which the landlord is not entitled to resume should be declared surplus to provide land for redistribution.

(d) Provided that where a tenant's family comprises more than one adult worker, the tenant shall, in addition to a family holding, be entitled to retain half a family holding for each additional adult worker.

The family may, for this purpose, be deemed to consist of all persons who are working with the tenant on land and who, if they survived the tenant without nearer heirs would be entitled to inherit his right.

Exemptions to the above rules may be made in the following cases:

(i) Small Owners: Social considerations demand a more careful balancing of the rights of the small owners and their tenants. A small owner may be defined as a person who owns less than a family holding. He should

be permitted to resume (including the area already held under personal cultivation) half the area owned by him but not less than the floor which will be one-third of the family holding. Where this would reduce the tenant's holding to less than the floor the Government should, before permitting resumption, allot to the tenant, out of the surplus land, an area which will make up his holding up to the floor.

(ii) **Persons Suffering from a Disability:** Where a person was obligated to lease the land, he should have the prior right to land for personal cultivation to the extent he can cultivate with his own labour together with the labour of his family members and occasional assistance of hired labourers. For this purpose, the person may be presumed to be suffering from a disability if he belongs to any one of the following categories:

(a) Unmarried women;

(b) Widows;

(c) Minors;

(d) Persons suffering from mental or physical disability; and

(e) Persons serving in the Armed Forces.

If in the family of such a person there is an adult worker capable of engaging in cultivation, he should not be presumed to be suffering from a disability.

Where as a result of resumption by a person suffering from a disability, the tenant is left with less than the minimum area, he should have the first preference to allotment of land out of the surplus area to the extent it may be necessary to make up his holding up to the minimum area.

In order to remove uncertainty and to stabilise the position of tenants, the areas which the landlord is entitled to resume and the areas to be retained by the tenants should be demarcated in as short a period as possible. A period of, say, six months should be prescribed during which the owner shall be required to apply for reservation of land which is to be resumed.

In demarcating the resumable and the non-resumable area, the tenant in possession should have the right to select the area which he is entitled to retain. The tenant should select the area in the following order of priorities:

(a) Land owned by him, if any, and which he is entitled to retain;

(b) Land held by him from substantial holders;

(c) Land held by him from medium holders; and

(d) Land held by him from small holders.

The landowner will then select the land for resumption out of the remaining area up to the limit mentioned above. The excess land, if any, will then be declared surplus.

Condition for Resumption: The right of resumption will, in all cases, be subject to the condition that the income from the land to be resumed will be the main source of the owner's income.

Period of Resumption: The substantial owner shall exercise the right to actually resume the land by ejectment of the tenant within three years, and in cases where the owner suffers from a disability within three years of the termination of the disability, failing which the right of resumption will lapse. In the case of small owners, the right can be exercised within three years, but if it is not thus exercised, the lease shall be deemed to be renewed for five years, for successive period of the right of resumption being available at the end of each five-year period.

Rights of Tenants in the Non-resumable Area: In respect of the non-resumable area, the tenants should have the right of permanent and heritable possession. They should also have all the other rights and obligations recommended in an earlier section for the owners.

Rights in the Resumable Area: With regard to the resumable area, pending its resumption by the landlord, the tenant may have heritable but not permanent rights together with a right to make improvements. He should be entitled to compensation if it is undertaken with the Government's consent. He should not, however, have a right of transfer, mortgage or exchange.

Definitions of "Personal Cultivation" and "Tenant": The expressions "personal cultivation" and "tenant" need to be defined more precisely than is generally done.

The principal constituents of "personal cultivation" are:

(a) **Risk of Cultivation:** The cultivator should meet the entire risk of cultivation. Where he shares the risk with another person, who receives a share of the produce as his remuneration, the latter has an apparent motive for cultivating the land to the best of his capacity. It is common practice for the landowner to leave the entire management of land to him and become an absentee. As in the definition adopted in Bombay and some other States, the owner should, therefore, bear the entire risk of cultivation.

(b) **Personal Supervision:** By the owner or a member of his family cannot be effectively exercised without residence in the village or in a contiguous village during the major part of the agricultural season.

(c) **Labour:** A bona fide cultivator is one who engages himself in the principal agricultural operations, such as ploughing, sowing and harvesting. Performance of minimum labour should, therefore, be included in the definition of personal cultivation.

When a person resumes land for personal cultivation by ejecting a tenant, he should be required to fulfil the conditions of personal cultivation outlined above. If he fails to satisfy any one of these conditions, the land should revert to the tenant or the State, as the case may be.

It would, however, be difficult to apply these conditions to all existing arrangements in areas where the

definition of personal cultivation is less complete and a worker who receives the bulk of his remuneration in the form of a share of the produce is not regarded as a tenant. In such cases, the arrangement should not be considered a lease if the owner also engages in the work of cultivation and performs minimum labour. If he does not do so, it is a lease and tenancy rights should accrue.

Where an owner meets the entire risk of cultivation but does not reside in the village and exercises personal supervision effectively, he should have an opportunity to take up residence in the village. With regard to future arrangements, while the three conditions described above represent the goal which should gradually be achieved, it is not necessary at this stage to insist upon the performance of minimum labour provided the owner meets the entire risk of cultivation, resides in the village and personally supervises agricultural operations.

Fair Rents: Rents should be brought down to the level of one-sixth of the produce or value thereof by the end of the Second Five-Year Plan period. As the State will undertake the responsibility to collect rents, it will be necessary for administrative convenience to commute produce rents into fixed money rents as speedily as possible. In the determination of rents, increase in produce resulting from an improvement made by the tenant at his own expense should not be taken into account.

Ownership for Tenants: In the foregoing paragraphs, we have suggested that all tenants should be brought into direct relationship with the State with immediate effect. As soon as it may be feasible and keeping in view the level of rent and the financial obligations involved, the State Governments may put out the landlord's interest on payment of compensation. In determining the rate of compensation, the aggregate net increase in revenues accruing to the State (i.e. fair rent minus land revenue minus collection charges) over a period not exceeding 20 years may be taken into consideration. Graded rates of compensation might also be considered. The compensation may be paid in the form of bonds redeemable over a period of 20 years. The tenant's liability to pay fair rent should continue so long as it may be necessary for enabling the State Government to meet the liability for payment of compensation. At the end of the period the State Government may review the position, and, if necessary, require the tenants to pay land revenue only. Since acquisition of ownership rights would by this method take about 20 years or so tenants should so have the right voluntarily to purchase ownership at a reasonable price to be prescribed by law.

Administrative Agency

Problems relating to administrative organisation should receive immediate attention.

With regard to difficulties arising from the fact that

Village Panchayats are divided by factions or do not truly represent the various interests in the villages, we would suggest that the difficulties can be met by:

(i) the provision that the Village Panchayats may co-opt additional members to find adequate representation to various classes of interests involved, such as tenants, agricultural labourers, etc.; and

(ii) by gradation of Panchayats into Grades A, B and C as recommended by the Congress Panchayat Committee.

The Village Panchayats which have been elected on a unanimous basis and thus command confidence of the whole community and such other Panchayats as possess the necessary competence would be placed in Grade 'A'. These Panchayats would undertake all the functions with regard to the implementation of land reform measures, namely:

(i) association with the work of maintenance of land records;

(ii) making leases of land in all cases where the owner is unable to cultivate the land himself and desires that it may be let out for cultivation;

(iii) association with the determination of surplus lands;

(iv) association with the re-distribution of surplus lands;

(v) allotment of waste lands; and

(vi) where land is being transferred by an owner by sale, the selection of the transferee to whom the land may be transferred.

The other Panchayats can be graded into Class 'B' or 'C' according to their experience and competence and could be given lesser powers to begin with. It would, however, be desirable to associate these Village Panchayats also with the preparation and maintenance of records. A sustained effort should, however, be made to give these Panchayats the necessary training and support so that they become competent to discharge wider responsibilities. We consider it necessary that there should be representative bodies at higher levels to give necessary support to the Village Panchayats and to exercise general supervision over their work. It is not, however, necessary to enter into details as the whole question of village organisation is being considered by the Committee on Problems of Re-organisation.

Judicial functions relating to the enforcement of land reform measures comprise:

(i) disputes regarding tenancies;

(ii) disputes regarding possession of land;

(iii) disputes regarding commutation;

(iv) appeals arising out of correction of records;

(v) cases regarding arrears of rent;

(vi) ejectment of tenants;

(vii) ejectment of trespassers;

(viii) restoration of possession to tenants; and

(ix) fixation of the price of lands where lands are transferred.

The ultimate objective is that these cases should be dealt with in the village itself by Nyaya Panchayats. For this purpose Nyaya Panchayats should be established, where they do not already exist, as speedily as possible. Where the decision of a particular category of cases cannot be entrusted to Panchayats, they should be encouraged to consider and determine facts, and their findings on facts should be subject to confirmation by the revenue or civil courts. It is essential that up-to-date land records should be prepared as a measure of topmost priority and they should contain full particulars about the mode of cultivation of land, the terms and conditions of tenancies, and the names of the actual tillers of land. The progress of work in this connection should be carefully watched and facilities given to State Governments where necessary to complete the preparation or revision of records as soon as possible. Besides, the records frequently contain errors which lead to much litigation. The preparation or revision of such records is the first step in the enforcement of any measure of land reforms. Unfortunately during the preparation or revision of records false claims are often made by different parties. It has been our experience that in such cases the best evidence of the actual fact of possession can be obtained only in the village. It is easy for a few villagers to suppress facts before a Revenue Officer who is far away from the village but it is extremely difficult for them to behave in the same manner in the presence of the whole body of villagers. To ensure correctness of records in future we recommend the adoption of the procedure which has recently been initiated in U.P., namely, that a copy of the record showing the possession of land should be maintained with the Village Panchayat and all subsequent changes with regard to possession of land should be communicated to the panchayats as well as to the affected parties.

As soon as the interim law for the stay of ejectments has been enacted, ejectments under the law would stop. As we stated earlier, dispossession of tenants takes place mainly as a result of "voluntary surrenders". Unless effective steps are taken to prevent these surrenders, it is feared the whole law may become ineffective. It is true that a provision for restoration of tenants which will apply to cases of surrenders also will, to some extent, discourage surrenders. It will not, however, wholly prevent them as is borne out by the present experience. It will, therefore, be necessary to provide in the law that no one shall surrender land and no landlord shall accept surrender from a tenant pending the enactment of the comprehensive law. If any tenant for certain economic reasons is meanwhile unable to cultivate the land, he may surrender it to the Government which should have the authority to settle a new tenant on it.

Restoration of tenants will present a much more difficult task. The law should provide for restoration on application as well as suo moto by the revenue authority. If restoration is to be made only on the application of a tenant, it is feared that due to the influence of the landlord many tenants may not come forward with applications. Suo moto action is, therefore, necessary. To enable the revenue administration to take suo moto action, we suggest that while the record-of-rights is being prepared, information should also be collected regarding the tenants who had been dispossessed of lands. As the Village Panchayats will be associated with the preparation of records, it should be comparatively easier to collect this information. A further difficulty may be experienced where a landlord after ejecting a tenant has admitted another tenant. We suggest that in such cases restoration of tenants may not be insisted upon provided the new tenant has been admitted bona fide and is not merely a relation or a dependent admitted with a view to avoiding the provisions of the law. If, however, the new tenant has, thus, acquired an area exceeding, say, a family holding, the ejected tenant could be admitted to the land held by the new tenant, in excess of the family holding.

Pari passu with the preparation of the record-of-rights, the State Governments will also take action for the enactment of a comprehensive law so that by the time the record-of-rights has been prepared, the comprehensive law is also brought on the anvil. The tenants should then be brought into direct relationship with the State which should collect fair rent from them and pay it to the landlord after deducting a collection charge. The stage will then be reached for the demarcation of the resumable and non-resumable areas. The demarcation of these areas, and all other disputes relating to tenancy rights, will, as stated earlier, be the responsibility of the Judicial Panchayats.

We have mentioned earlier that the ignorance of the people of the provisions of the land reform law constitutes a major factor contributing to the ineffectiveness of the law. It is necessary, therefore, that deliberate efforts should be made to inform the people about the contents of law. The revenue staff and the Village Panchayats are the principal agencies which could be utilised for this purpose. The provisions of the land reform law should be rendered in a simple language which the subordinate staff and the "panches" could understand. Small pamphlets containing the provisions of the law should be widely distributed. Seminars in rural areas may also be organised where these provisions be freely discussed. The local vernacular Press should be encouraged to give wide publicity to the provisions. Where necessary, special agencies should be created for this purpose.

OFFICIAL LANGUAGE COMMISSION, 1955—REPORT

New Delhi, Ministry of Home Affairs, 1957. 495p.

Chairman : Shri B. G. Kher.

Members : Dr. Birinchi Kumar Barua; Dr. S. K. Chatterji; Shri Maganbhai Desai; Shri D. C. Pavate; Prof. P. N. Pushp; Shri M. K. Raja; Dr. P. Subbarayan; Shri G. P. Nene; Dr. P. K. Parija; Sardar Teja Singh; Shri M. Satyanarayana; Dr. Babu Ram Saksena; Dr. Abid Hussain; Dr. Amar Nath Jha (died, replaced by Prof. Ramdhari Sinha); Dr. R.P. Tripathi; Shri Balkrishna Sharma; Shri Mauli Chander Sharma; Dr. Hazari Prasad Dwivedi; Shri Jai Narain Vyas; Shri M. Ananthasayanam Ayyangar.

Secretary : Shri S. G. Barve.

APPOINTMENT

In pursuance of the provisions contained in Article 344 of the Constitution, the Official Language Commission was constituted by the President of India vide the Notification of the Ministry of Home Affairs No. 43/9/55-Public I, dated June 7, 1955.

TERMS OF REFERENCE

To make recommendations to:

- (a) The progressive use of the Hindi language for the official purposes of the Union;
- (b) Restrictions on the use of the English language for all or any of the official purposes of the Union;
- (c) The language to be used for all or any of the purposes mentioned in Article 348 of the Constitution;
- (d) The form of numerals to be used for any one or more specified purposes of the Union;
- (e) The preparation of a time schedule according to which and the manner in which Hindi may gradually replace English as the official language of the Union and as a language for communication between the Union and State Governments and between one State Government and another.

In making their recommendations, the Commission shall have due regard to the industrial, cultural and scientific advancement of India and the just claims and interests of persons belonging to the non-Hindi speaking areas in regard to the public services.

The Commission may:

- (a) obtain such information as they may consider useful for or relevant to any matter under their consideration whether by asking for written memoranda or by examining witnesses, or in such form and in such manner

as they may consider appropriate, from the Central Government, the State Governments, the Supreme Court, the High Courts, the Legislatures and such other authorities, organisations or individuals as may, in the opinion of the Commission, be of assistance to them;

(b) regulate their own procedure, including the fixing of places and time of their sittings and deciding whether to sit in public or in private;

(c) appoint such and so many sub-committees from amongst their members to exercise such powers and perform such duties as may be delegated to them by the Commission;

(d) visit or depute any of their sub-committees to visit such parts of the territory of India as they consider necessary or expedient;

(e) act, notwithstanding the temporary absence of any member or the existence of any vacancy among the members.

CONTENTS

Introductory; Language in the Modern World; The Indian Linguistic Scene; The Indian Language Problem and the Lineaments of a Solution; Terminology; The Union Language and the Educational System; Language in Public Administration—I; Language in Public Administration—II; Language of Law and Law Courts—I; Language of Law and Law Courts—II; Language of Law and Law Courts—III; The Union Language and Public Services Examinations; Propagation and Development of Hindi and the Regional Languages; Agencies, etc., for Implementation of the National Language Programme; Concluding Remarks; Appendices I to XV.

RECOMMENDATIONS

Language In The Modern World

Language, in its spoken and written form, is an indispensable tool of all forms of social organisation and basic to the advancement of knowledge and human progress. In modern communities mass literacy is an indispensable means for technological progress and improvement of living standards.

Language is generally an important element in the consciousness of nationality: since modern Governments have to concern themselves intimately with numerous aspects of life in a community, the question of linguistic medium for "official purposes" becomes an important matter for deliberate choice.

In certain countries of the world like Switzerland, Canada, Belgium, the problem of languages, since it

arises in respect of no more than three or four languages, is solved, generally speaking, by adoption of a widespread multi-lingualism; in the U.S.S.R., the outstanding position of the Russian language from all points of view in the linguistic map of the country simplifies the language problem in that country compared to the Indian situation.

In Japan and in Turkey deliberate programmes of language reform were undertaken and carried through as a measure of national policy; the outstanding issue of language reform in China is the alphabetisation of the script.

While the complexity of the Indian language problem exceeds that of other multi-lingual countries, a solution sought on pragmatic lines and in a spirit of tolerance, understanding and respect for diverse cultural expressions—which have been painfully learnt in certain countries of the world as amelioratives for linguistic difficulties—ought to be available.

In many countries, for keeping abreast of scientific advances in the world, an advanced foreign language is systematically taught as a second language within the educational system: the English language is the foremost amongst such second languages in many parts of the world.

The Indian Linguistic Scene

As the vast sub-continent of India has been the meeting ground throughout the history for the people of diverse racial and demographic origin it is hardly to be wondered at that there should be a great multiplicity and variety in the forms of speech in this country.

Although the number of languages and dialects registered as such in linguistic surveys in India is very large, the cultivated current languages are only a few; besides, there are close affinities and common elements amongst all these languages. The languages that require to be considered in relation to the "language problem" in the country are only the important 13 regional languages (omitting Sanskrit) enlisted in the Eighth Schedule to the Constitution.

The system of public education introduced after the establishment of British rule in the country has had a profound influence on the Indian linguistic scene. Following the famous resolution passed by the Government of India in 1835 for imparting to Indians a knowledge of English literature and science, the policies laid down in Wood's Despatch of 1854 governed the educational system of the country for several decades thereafter. Although this Despatch embodied a clear recognition of the importance of the indigenous languages of the country in the educational system and envisaged literature in such languages as a necessary link in the "percolation" theory of education, in practice, these languages did not feature to any significant extent in the

educational system as media of instruction until very recently. Apart from any official neglect of these languages in these early years the demand from the politically conscious Indian opinion was insistently for greater opportunities for learning English which it deemed as a "key" not only to scientific and other advance of the country but also as an instrument of political advance, and withal as a great liberalising social force.

Growingly, over the last 150 years, the English language came to supervene and finally eclipsed entirely the Indian languages in all important fields of public administration, higher education, the professions and public life. As a result of such supersession, these languages continued undeveloped and they are now not in a position to displace English in their appropriate fields until these deficiencies have been made up.

Notwithstanding all this, Indian literature still recorded a very impressive development during these decades. The period of the 19th century represents a great renaissance in the Indian languages brought about by the advent of the printing press, the opening out of new vistas of literary forms and features through acquaintance of English literature and the impact of Western civilisation on Indian conditions. Thanks to this efflorescence in the indigenous languages, we are now in a position to think in terms of switching over to Indian language media in all fields of activity, including those from which they have hitherto been excluded.

It is suggested for the consideration of Census authorities that a question indicative of linguistic ability in the Hindi language on the part of speakers of non-Hindi mother tongues all over the country may be instituted at the next and subsequent censuses.

The Indian Language Problem And The Lineaments Of A Solution

The enfranchisement of the regional languages in their appropriate fields and the forging of a common medium of expression for all relevant purposes, official and non-official, with reference to all aspects of pan-Indian intercourse, constitute the language problem of India.

In the light of the fully democratic basis of the Indian polity as established under the Constitution, it is not possible to envisage English as the common all-India mass medium. About 1 per cent of the population has presently anything like an adequate linguistic ability in English. The programme of compulsory elementary education, enjoined in the Constitution, can be conceived of only in terms of Indian languages.

This conclusion has been reached not on grounds of prejudice against a foreign language, or in disregard of the wealth of literature and scientific knowledge available in it, or merely on grounds of patriotic sentiment; it is also recognised that for the maintenance of high

academic standards, particularly in respect of scientific knowledge and research, for maintaining a live communion with the progress of science and thought in the rest of the world, and for other specific purposes like international contacts, as language of diplomacy, etc., a knowledge of the English language will have to be cultivated by appropriate categories of persons. However, there is a vital distinction between the use of a foreign language for specific purposes or as "a second language", and its use as the *principal or general medium* of education, administration, public life and the day-to-day business of the country. It is this aspect which is sought to be rectified.

The obvious linguistic medium for pan-Indian purposes is the Hindi language. Hindi has been adopted as the Union language and the language for inter-State communication in the Indian Constitution having regard to the relative numbers of the population who speak and understand this language, compared to the other regional languages; and not because in point of development, or in point of literary wealth, other regional languages in India are in any way inferior to Hindi.

It is not practicable to adopt two Union languages, one from the Indo-Aryan and the other from the Dravidian families; nor is it possible to think in terms of Sanskrit as such an all-India medium.

In view of all this, the provisions made in the Constitution for adoption of Hindi for the purposes of the Union, Union-State and inter-State communication represent the only practicable course.

On the displacement of the English language as a general medium in these various spheres of national life the "succession" would accrue not wholly to the Union language but to the Union and regional languages in their appropriate spheres.

The Hindi language will replace the English language only to a limited extent in one sense as it would not wholly "step into the shoes" of the English language, the regional languages having been yielded their appropriate places; in another sense, however, having regard to the vast programmes of compulsory education and literacy ahead, the extent of coverage that would accrue to the Union language would be enormously in excess of the population served by the English language at present or of what could possibly be served by any such foreign linguistic medium.

While the Constitution properly limits itself to the question of replacing English by Indian linguistic media in the official business of the country, there are other fields of activity, within, so to say, the "private sector of national life", wherein the question of a single linguistic medium for all pan-Indian levels of intercourse is of the highest significance. In these fields there is little or no scope for legislating with reference to any specific language policy; and the linguistic pattern must be allowed

freedom to develop as it may by the voluntary choices of the people and in response to the needs and opportunities of the situation. After initiating necessary steps for the development of the Union language as well as of the regional languages, this sector may be left free for all the different linguistic media to attain their appropriate coverage with reference to the needs and opportunities in different fields, evolving in due course a general linguistic equilibrium.

The constitutional provisions limit themselves to laying down the minimum requirements with reference to the sectors of activity relatable to official business; for our part also we have limited ourselves to this and the necessary consequential measures for sustaining the linguistic provisions for the official sector.

Apart from these strict and minimum requirements of the situation, what the constitutional provisions envisage, and we whole-heartedly endorse, is a "republic of letters" in which each language, including English, will find the place that properly belongs to it in the country's national life.

The language provisions of the Constitution are wise and comprehending; while clearly enunciating the objectives, they make due provision for the need for developing the Union language, the special case of language for law courts and legislation, and the difficulties of the transitional period. They are viable and elastic, and it should be possible to accommodate the situation as it develops without amendment of the constitutional framework.

Practically all responsible opinion accepts the constitutional settlement, although some persons have doubts as to the preparatory period of 15 years being ultimately found adequate; others are of the view that the period will be found adequate for a *general* change-over of the linguistic medium provided sufficiently energetic steps are taken in the meantime. However, this is not an issue on which it is necessary or possible for this Commission to pronounce.

We have no opinion to express regarding the legitimacy of the demands for the inclusion of the Sindhi and the English languages in the Eighth Schedule to the Constitution. The reason is that the question of inclusion of any more languages in that Schedule is not included within, and does not appear to be necessarily relatable to, our Terms of Reference; nor have we taken evidence with reference to these demands which were made to us only towards the end of our labours.

Apart from the constitutional provisions regarding language of the Union and of the States, the Indian Constitution enacts certain general safeguards relating to languages and scripts as a part of the cultural and educational rights of minorities. These provisions are an extension of the same spirit of liberalism and catholicity which characterises the provisions of the Constitu-

tion relating to official languages and recognise and allow for the variety and multiform character of the Indian cultural inheritance. In different regions certain local problems arise relating to languages. While these fall outside our purview, we are convinced that all these local problems are capable of being resolved satisfactorily, if they are approached in the same spirit of tolerance and broadmindedness which informs the cultural and linguistic guarantees and other language provisions of the Constitution.

Terminology

The principal ground-work for the development of the Union language and the regional languages is the furnishing to them of an adequate technical terminology wherever it is deficient at present.

In adopting terminology, clarity, precision and simplicity should be primarily aimed at. Doctrinaire insistence on "language purism" is deprecated.

Promising sources for adopting new terminology should be available in the indigenous terms current in the past, and the terms currently used in actual life amongst various categories of craftsmen, artisans, etc. These should be explored. In suitable cases, international terminology may be adopted or adapted to the genius of the Indian languages.

The maximum possible identity in evolving new terminology for all Indian languages should be aimed at.

Suitable arrangements should be made for evolving terminology and for co-ordinating such work as between different authorities with reference to the Union language as well as the other regional languages.

On a review of the work done so far in the Ministry of Education of the Government of India, there would seem to be room for greater acceleration in the work and need for achieving more effective co-ordination as between different terminological efforts.

Before the terminology evolved can be thoroughly assimilated into the corpus of the "host" languages, two stages must be envisaged: (i) to start using the new terminology and (ii) to undertake its periodical re-standardisation.

The Union Language And The Educational System

The problem of language instruction and of language medium in the educational system is considered in this Report only in so far as it is relatable to the language question of the country.

In view of Article 45 of the Directive Principles of State Policy in the Indian Constitution, under which "the State shall endeavour to provide for free and compulsory education for all children until they complete the age of 14 years", the educational system must be re-oriented to achieve the imparting of sufficient literacy in the Hindi language by the age-limit of 14 years, so that

every citizen, if so inclined, may be in a position to comprehend and keep in touch with trends and movements in public life at pan-Indian levels including the activities of the Union Government.

The children undergoing compulsory education up to the age of 14 years in terms of Article 45 of the Constitution would receive about eight years of school education, during the whole of which they would have studied the regional language both as a subject and as the medium of instruction for other subjects. It is essential to provide for a minimum of three or four years of instruction in Hindi during the later part of this period.

Even when English ceases to be the medium of instruction in our Universities, it would be necessary, for a long time to come, to provide that the graduates emerging from our Universities, especially in the scientific subjects and professions, are equipped with a sufficient command of English (or other suitable advanced foreign language) to enable them to comprehend and follow further advances in their particular departments of study through journals and new publications available in such a language.

In view of the different purposes that English would now serve in the educational system of the country, it is necessary to review the present teaching methods and the content and character of instruction in English imparted presently. English should be taught hereafter principally as a "language of comprehension" and not as a literary language, excepting when it is taken as a voluntary subject for special study.

It will be for the appropriate authorities, after a study of pedagogic considerations, to formulate the exact curricula for imparting to students, during the secondary school stage and after, the degree of knowledge in the English language that we consider necessary for Undergraduates and Graduates to possess. Tentatively it would seem appropriate if instruction in the English language commenced in the Secondary school at a stage about five years pre-S.L.C.

There may be a suitable "streaming off" of boys destined to follow further academic education from those who would leave off education at the end of the 14-year age-limit of compulsory education, the instruction in English suggested above being imparted, as a rule, only to the former.

The quantum of instruction in the Hindi language which we consider indispensable for students in secondary schools could be imparted to them if instruction in the Hindi language commenced roughly at the close of the Primary stage and continued up to the S.L.C. stage.

In our view instruction in Hindi should be compulsory at the Secondary school stage all over the country and the arguments for such a course of action are strong and decisive. However, reasons of expediency might also have relevance within particular regions and the

decision as to when compulsion should be introduced must be left to be made by the State Government concerned in whose jurisdiction the decision anyhow lies.

The suggestion that there should be "compensatory compulsion" to the students in the Hindi-speaking areas in Secondary schools to learn another Indian language (a South Indian language) is examined and negated.

However, the educational authorities in the Hindi-speaking areas should be encouraged to provide facilities for the learning of other Indian languages to the maximum possible extent and, where necessary, special assistance should be made available from governmental sources for this purpose.

For various reasons the English language must eventually be replaced by an Indian language or languages as a general medium of higher education. The waste of energy that the foreign medium involves, the burden that it imposes on the intellectual development of our youth, the general blighting effect that the whole situation has on an independent and original thinking, and the resultant alienation of the educated classes from the rest of the community, make it imperative that the medium of instruction should be changed. Provided such a change-over is properly phased and made after complete and satisfactory preparations, it would not itself cause any fall in the academic standards, and should indeed eventually open the way for their considerable improvement.

If English is to be displaced as a general medium of university education, the question arises whether it should be replaced by one single common medium, i.e. Hindi in all Universities, or by respective regional languages in the Universities in the different regions. There are certain advantages in a country-wide single medium of university education; at the same time there are strong and comprehensible reasons which urge people to seek to replace the English medium by the regional language.

It is not necessary that the change-over of medium should be simultaneous or uniform or monolithic. It may be that some courses of study, say, the humanities, can be more appropriately taught in the regional languages; it may be that for other courses of study the advantages of a common medium in all Universities operate much more powerfully; in yet other faculties it may be preferable, particularly at higher levels, even to continue the English medium; it may also be that in some courses of study, the regional language medium may be adopted for lower levels and a common medium, i.e. the English or Hindi language, adopted for post-graduate studies. Among other things, the decisions of Universities in this regard would depend upon availability of teachers, text-books and other supporting literature in various branches of study.

The whole situation is still fluid and we would

advocate that it may be left, in the first instance, to the Universities to judge it after mutual consultation through their customary channels and to decide for themselves what medium or media they would adopt for different courses of study and stages therein.

Certain minimum arrangements from the point of view of the language problem of the country, however, seem to us quite necessary. These may be as under:

All universities in any event be required to arrange to examine students offering themselves for any university examination with Hindi as the medium of instruction.

All affiliating universities should also be under obligation to offer affiliation on equal terms to any college or institution teaching through Hindi any of their courses in the territorial jurisdiction of the University.

The establishing, in addition, of Central Universities in the non-Hindi-speaking areas, with Hindi as the medium of instruction and allowing Hindi-medium institutions situated within the jurisdiction of other universities and to affiliate to them, would not be necessary if the above-mentioned arrangements are found sufficient to provide affiliation facilities to institutions adopting the medium of Hindi.

In the case of scientific and technical educational institutions, where students drawn from different linguistic regions avail themselves of the instruction imparted, the common medium of the Hindi language will have to be adopted; where students are drawn exclusively or almost wholly from a single linguistic group, the medium will have to be the regional language concerned. All such cases must be decided pragmatically on the specific merits of each.

So far as the question of the linguistic medium of instruction is concerned, the principle of "autonomy of universities" can, in the final analysis, have only a qualified hearing and the national language policy must ultimately prevail.

The supply of text-books for various university courses in Hindi and the regional languages would of course tend to respond to the greater demand for them; nevertheless, it is necessary to provide for effective and co-ordinated action in this field. As for the production of "reference literature" in these languages, special promotional efforts may be necessary and will have to be organised.

Language in Public Administration—I Official Language of the Union

The programme chalked out by the Government of India for changing over the medium of business in the affairs of the Union is reviewed. The pre-requisites of a change-over in the language for administration are:

- (1) Preparation and standardisation of the necessary special terminology used in the administrative field.
- (2) Translation into Hindi of official publications

embodying rules, regulations, manuals, handbooks and other procedural literature relating to the working of the administrative machinery.

(3) Training of administrative personnel of different categories in appropriate standards of linguistic competence for the purpose of using the new linguistic medium with the requisite efficiency and facility of expression.

(4) Development and furnishing in the new linguistic medium of the mechanical and service aids necessary for speeding up and facilitating office work, such as typewriters and typists, stenography and stenographers, printing and duplicating machines, teleprinters and other communication services adapted to the use of the new medium, etc.

Regarding (2) above, it is necessary to ensure that a measure of uniformity is observed in the language used in the translations of all this procedural literature, and for that purpose it may be advisable to invest in a single agency of the Central Government the general responsibility for direction and superintendence over all such work.

As regards (3) above, (training of personnel) the present arrangements made by the Government of India for training their employees on a voluntary basis in the Hindi language are reviewed.

If experience shows that adequate results are not forthcoming under such optional arrangements, it would be legitimate and necessary for the Government to impose, in pursuance of their language policy, obligatory requirements on Government servants to qualify themselves in Hindi within a reasonable period to the extent requisite for the discharge of their duties.

As regards (4) above, schemes should be adopted whereunder stenographers and typists are granted special leave and accorded special facilities to enable them to undertake training in stenography and typing in the new linguistic medium and to acquire knowledge of the Union language.

The standard of linguistic ability in the English language normally associated with the academic education prescribed as a qualification for purposes of recruitment to various categories of posts and services would furnish a guide as to the standard of linguistic ability in Hindi to be aimed at for the different categories of Government personnel. During earlier stages perhaps a slightly lower standard might suffice.

Generally speaking, penalties would seem to be appropriate with reference to failure to attain the prescribed standard by the due date; incentives and rewards would seem to be appropriate with reference to performance above the minimum standard laid down.

In certain segments of the administrative machinery of the Union Government, technical English terms might continue to be used for an indefinite time in the future at levels at which it is not considered necessary to evolve

Indian terminology; similarly correspondence may be carried on in the English language where the work involves constant contact with foreign countries through that medium.

Apart from the Ministries or Departments of the Government of India, the linguistic medium will have to change over in the administrative agencies and organisations, such as the Railways, the Posts and Telegraphs, the Excise, Customs, Income-Tax Departments, and so on. Some of these organisations have units and branches located in different parts of the country and the language problem presents a special aspect in regard to them. It is necessary that these administrative organisations should evolve a measure of permanent bilingualism; that is to say, they will use the Hindi language for purposes of internal working and the respective regional languages in their public dealings in the respective regions.

It is necessary that the staff structures of these administrative agencies and departments of the Government of India with a countrywide coverage should be reviewed and decentralised to conform to the requirements of such bilingualism. The recruitment methods and qualifications for recruitment may have also to be revised suitably.

As employers, these all-India departments and organisations have certainly the right to prescribe the standards of Hindi qualification (as of qualification, where necessary, in the respective regional languages) necessary for purposes of recruitment to the different categories of their establishment. It may be that for zonal and regional requirements, the standard of Hindi qualification could be somewhat lower than what would be necessary for the headquarters organisation of these offices as the work in the latter, as distinguished from the former, would be carried on wholly in Hindi.

In order that employment opportunities in the different regions are not curtailed during the transitional period, the requirements of Hindi knowledge may at the start be pitched somewhat lower having due regard to the progress of Hindi in the local educational system, and deficiency being made good by in-service training (after recruitment). The standard may be progressively raised as facilities for instruction in the Hindi language improve in particular regions.

The language policy of the all-India administrative agencies of the Central Government, like the Railways and the Posts and Telegraphs, in their dealings with the public should be framed principally with a view to be convenient to the public whom they are designed to serve: the instrumentality of these Departments should not be used as a "lever" to force the pace of Hindi propagation at the cost of convenience to the public. Where Hindi terms and expressions are used on signboards, forms, etc., for the purpose of familiarising the public with them, the text should also be given in the regional

language (or English where relevant) having regard to public convenience.

It is necessary to examine all new Hindi terms and expressions, especially those used by these all-India administrative agencies which come into intimate contact with the public, so as to ensure that the terms and expressions are not discordant with local forms of speech and associations; where certain Sanskrit words have come to acquire in different languages different specialised meanings the employment of inept or unsuitable expressions in disregard or ignorance of these is apt to bring the attempt at "Indianization" of the medium itself into disparagement and ridicule.

It would not be correct, to adopt, instead of training personnel in the new medium, the device of separate translation units or bureaux being maintained at an additional cost to the public funds for translating the work done originally in the English language. While translation services would have their place in the administrative organisation both permanently and as an aid during the transitional stage, these cannot be a substitute for training the personnel to do its work originally in Hindi. In our view, the continuance of the original work in English and its translation at public expense at different stages into Hindi was not the sense in which the changeover in the linguistic medium for the business of the Union was enacted (*sic*) in the Constitution.

The Union Government would be justified in prescribing a reasonable measure of knowledge of the Hindi language as a qualification for entry into their services by new entrants, provided a sufficiently long notice is given and the measure of linguistic ability prescribed is moderate, any deficit being made good by subsequent in-service training.

In the case of officials of the age of 45 and above, the requirement to be prescribed should be for a "comprehending knowledge" of Hindi rather than high levels of linguistic ability for purposes of expression corresponding to the levels of their ability in English. If necessary, separate tests may be devised for the purpose.

The statutory publications of the Government of India would necessarily be in the official language of the Union. It would seem advisable that as many of these as possible, particularly those intended for information of the public, should be published in the Hindi language from now on; translations of such publications should be published in other regional languages depending upon the public to whom they are addressed.

We do not recommend that any restrictions should be imposed for the present on the use of the English language for any of the purposes of the Union.

It has not been possible for us to furnish a regular time-table by dates and stages as to how Hindi should

be introduced into the business of the Union so as to accomplish the general changeover within the period fixed by the Constitution. Since the Ministries of the Government of India are components of a single organic unity, the phasing of the progressive use of Hindi must, in general, be lateral and coherent in the different Ministries and Departments. We have not had the benefit of a provisional "plan of action" by the Government of India covering all its Ministries and Departments and comprehending their special difficulties, if any, estimates of workloads of basic preparatory work involved, the present linguistic capacity of all the Government staff and approximate dates by which they could be trained in the new linguistic medium, etc. While we have, therefore, indicated the prerequisites, the general sequence of the phasing and the principles covering various related issues, the actual drawing up of a plan of action and the setting up of a time schedule there-within must be left to the Government of India themselves to do after a study of the relevant factors.

The special case of the Indian Audit and Accounts Department under the Comptroller and Auditor-General of India is examined. After a State has adopted its regional language as the official language, it will be necessary to arrange that the staff of the Indian Audit and Accounts Department dealing with the affairs of the State is versed in that language sufficiently for the purpose of carrying out its duties of compiling accounts and the exercise of audit. This implies that the Accountant-General's Comptroller's office in a State should be capable of compiling accounts from returns submitted in the regional language and conducting audit with reference to noting and administrative decisions recorded in the regional language.

"Provincialisation of audit" was mentioned as a possible way of resolving this difficulty; it is, however, not necessary to consider such an alternative which would involve a major change in the constitutional arrangements currently in force. We feel that it ought to be possible to devise a solution within the framework of the existing constitutional arrangement whereby, on the one hand, the establishment of the Accountant-General's Comptroller's office in each State would be able to carry out their duties in respect of transactions recorded in the State language, and, on the other, the present system, wherein the accounts and audit responsibility in respect of the Union as well as of the States is centred in the Comptroller and Auditor-General working through a single Indian Audit and Accounts Department, is maintained. The organisation and methods of staffing of the Indian Audit and Accounts Department may have to be revised on lines somewhat similar, to the ones envisaged in respect of the Central Departments comprising activities spread over the whole country.

Language In Public Administration—II

Progress Made In The Use Of Hindi In State Administrations

In general, the progress in the adoption of the Indian language medium, in replacement of the English medium, has been more rapid in the States in the Hindi region than in the rest of the country; however, after the reorganisation of States on a more or less unilingual basis, we would expect the trend, for displacement of the English language by the respective regional languages for the official purposes within such States, to intensify in the non-Hindi-speaking areas as well.

The States concerned will have to consider for themselves at what level administrative occasions would arise for their officers to enter into communication, oral or written, with officers of other States or of the Union. The State Governments must determine for themselves what staff would be affected and what precise steps should be taken for training their personnel at the appropriate levels for dealing with Hindi communications.

As in the case of the Union Government, the State Governments would be justified in imposing obligatory requirements for the acquisition of qualifications in the Hindi language with reference to the staff embraced by the requirements of the new linguistic medium in the field of inter-State and State-Union communications. It would seem that acquisition of a knowledge of the Hindi language beyond these requirements should be on the basis of rewards and incentives rather than compulsion and penalties; however, this is an issue which must be decided by each State for itself.

Arrangements may be made for outgoing communications from the Union Government to a Hindi-speaking State being accompanied by a Hindi translation of the English text, whenever such a State makes a request to this effect. The employment of Hindi in actual work of administration before 1965 in this manner will help in establishing forms of address, expressions, etc., in that language.

The Form Of Numerals

The international form of numerals is itself of Indian origin and as such is nothing but yet another mutation of the ancient Indian numerals, analogous to the several forms of numerals developed, together with their separate scripts, by the modern Indian languages.

It is to be noted that in the South the international form of numerals is in current use in the four great Dravidian languages, sometimes and to a varying extent, alongside the numerals of their respective scripts.

In certain States in the Hindi-speaking region the Devanagari form of numerals is used either exclusively or in addition to the international form of numerals for the internal purposes of the State administration.

It is for the respective State Governments to decide whether this should be so. So far as the Union Government is concerned, there should be a uniform basic policy depending on the public intended to be addressed as to the use of Devanagari numerals in addition to the international form of numerals in the publications of the different Ministries.

We have no recommendation to make for the issue of directions by the President for the use of the Devanagari form of numerals in addition to the international form of Indian numerals for any purposes of the Union between now and the time when the issue will be re-examined by the next Commission to be appointed in 1960.

Language Of Law And Law Courts—I

Language Of Legislation

A distinction must be made between the language to be adopted for the proceedings and deliberations of legislative bodies and the language of the enactments which they legislate. For the deliberative functions of legislatures, the requirements as to a language medium are facility of expression by the concerned speakers and convenience to the general assembly. For the linguistic medium of legislation, the governing considerations are different, namely, that the language must be precise, concise and unambiguous and capable of standing up to the interpretations that will be sought to be put on it in the numerous law courts of the country.

The practice as regards answering interpellations appears to vary. In some cases, provision is made, for furnishing, for the information of the other Members, written translations of the questions and answers in the prescribed language(s) of the legislative body concerned when these have been rendered in another language. Such a practice might be generalised with advantage.

It may happen that for a period of time after (i.e., January 25th, 1965, in the case of the Parliament) English has been replaced by Hindi in Parliament and by the respective official languages of the States in the State Legislatures, cases would arise in which a member may not be able to express himself adequately in Hindi/the State language concerned or in his own mother-tongue; and it would seem advisable that provision should be made to empower the presiding authorities in such cases to permit the members to address the House in English.

We are of the view that the constitutional provisions in regard to the language, relative to proceedings and deliberations of Parliament and legislative bodies of the States, are sufficient for the requirements of the situation.

Apart from the authoritative enactment which, in our opinion, ought to be eventually in Hindi, both in respect of parliamentary legislation and State legislation, there may be need, for the sake of public convenience, to publish translations of the enactments in different

regional languages. In respect of State legislation, this would be normally necessary in the regional language(s) prevalent in the State, whereas in respect of parliamentary legislation it may be necessary in all the important regional languages current in the country.

We consider that it is essential, when the time comes for this change-over, that the entire Statute Book of the country should be in one language which cannot of course be other than Hindi. Therefore the language of legislation of the States as well as of Parliament and also, of course, consequently of all statutory orders, rules, etc., issued under any law should be Hindi.

Language Of Law And Law Courts—II

Language Of Law Courts

In some States, like Madhya Bharat, Rajasthan, Hyderabad, etc., the use of Hindi/regional language has been authorised for proceedings, other than judgments, decrees or orders, of the High Courts.

The country's judicial system used to function, ere the last few decades, in languages other than English. The change-over to Indian language media from English may appear novel to the present generation which sees before it the English language proliferated over the entire judicial system. However it is only natural that justice should be administered in a country in its indigenous languages and, provided the change is brought about systematically, the prospect should not provoke alarm or cause apprehension about its basic practicability.

So far as the language of the Supreme Court is concerned, eventually there can be only one language, i.e. Hindi, in respect of the entire court proceedings and records, including, of course, the judgments and orders. When the time comes for the change-over, the Supreme Court will have to function only in the Hindi language. The authoritative texts of reported judgments of the Supreme Court will also be published in the same language.

Processes issued in Hindi by the Supreme Court, when addressed to a non-Hindi region or against a person whose mother-tongue is not Hindi, should be accompanied by a translation for the convenience of the concerned party.

Provision should also be made for reliable translations of Supreme Court decisions being available in the State languages in separate regional language series.

When the time comes for the change-over in the lower levels of the judiciary, that is to say, courts of panchayats, civil and criminal courts at the tehsil level, etc., the language of the courts must be the language best understood by the people, which would be the regional language(s) of the different States. The same considerations might prevail in respect of civil and criminal courts at the district level. Even at present, in

varying degrees, in the hierarchy of the judicial structure in the various States the regional languages are current at these levels.

With the Supreme Court functioning in Hindi and the subordinate judiciaries of different States functioning in their respective regional languages, there has to be some stage where the multiple linguistic pattern has to be broken and integrated. The multiple linguistic circuit falls to be broken at the High Court level and it is at this stage that there has to be a 'facing of both ways' viz., Hindi as far as the Supreme Court is concerned and the respective regional language(s) so far as the concerned subordinate judiciary is concerned.

The pros and cons of the regional and the Hindi languages are carefully examined so far as the linguistic medium of the High Court is concerned. There are several strong and, in our opinion, conclusive reasons in favour of deciding that when the time for the change-over arrives, the language of the judgments, decrees and orders of the High Courts must be a common linguistic medium for the whole country and, therefore, these should be in the Hindi language in all regions.

Since subordinate courts are guided by the determination of law given in the High Court judgments, there will have to be translations into the respective regional languages of all reportable High Court judgments. It would be necessary, in our opinion, to ensure that these translations are sufficiently reliable and we would suggest, for consideration by the concerned authorities, at the material time, that a "translation unit" may be established in each High Court for such translation of judgments.

So far as the processes, decrees and orders of High Courts are concerned, we would suggest that, wherever necessary, it may be provided that they would issue in regional languages in their "authorised translations", in addition to their original issue in Hindi.

As in all other such cases, so in regard to the language of the law courts, we consider it important to concentrate on bringing about the general change-over in the linguistic medium for the system as a whole. Wherever it is necessary to make individual exceptions for a good reason, e.g. in order that we may continue to enjoy or to secure afresh the services of suitable personnel for the posts of judges in the Supreme Court and the several High Courts, dispensation as to the language should be readily granted. It may be that for a long time after such a general change-over in the language of the judiciary has taken place, there would still be individual judges, who would prefer to deliver their judgments in English. Such individuals must be accommodated.

Having regard to the recommendations made by the States Reorganisation Commission regarding transfer of High Court judges and the proposals about a single judicial service, it might be worth considering whether

certain minimum language tests in appropriate regional languages and Hindi should not be adopted in the case of High Court judges.

Apart from the option of delivering judgments in English, there may be an option to High Court judges to deliver judgments in their regional languages provided English or Hindi translations of such judgments are authenticated by them.

Provision may be made for granting leave by presiding judges to counsel, in suitable cases, to argue in English in the Supreme Court and in English or the regional languages in the several High Courts even after the general change-over in the linguistic medium has taken place.

We would recommend, for consideration by the States concerned, at the appropriate time, the making of a provision (at any rate) at the district levels, whereunder it would be open to parties or counsel to resort to the Hindi language at their option. We expect that this would be particularly necessary in larger towns; but if it is found necessary at lower levels as well, the principle ought to be extended.

So far as the language of special tribunals is concerned, wherever their decisions or orders have a bearing not confined to a single region, it should be prescribed that their judgments and orders shall be delivered originally in Hindi. A translation in another language may be made available to the parties where necessary. As in the case of High Courts, we would envisage the English language being allowed to be used as the language of the judgment or order by individual judges of such special tribunals for a considerable transitional period.

The Universities should provide facilities for examination of law graduates both in the Hindi and the regional languages at the option of the candidates. So far as facilities for imparting instruction in the Universities or Colleges in Hindi/the regional language are concerned, the situation may be left to adjust itself in response to the demand for such instruction in Hindi or the regional language concerned. *WISI*

Language Of Law And Law Courts—III

The Dynamics Of The Change-Over

In the field of law and administration of justice, a general change-over should not be made until the groundwork has been fully prepared.

In accordance with our policy, with reference to similar other matters, of not indulging in prognostication as to the date by which any particular change-over would become practicable, we have not attempted to frame any estimates of the time-periods that would be required for completion of any of the preliminaries of the various phases through which the transition must pass. We have, however, indicated the particulars of such preliminaries and noticed the more important points in connec-

tion therewith that occurred to us; and also indicated the sequence in which the various phases must be articulated.

We have carefully considered the arguments advanced by some people for English continuing for an indefinite period as the language of legislation and of superior tribunals in the judicial hierarchy. We have come to the conclusion that the change-over in the linguistic medium will have to come in the field of legislation and the law courts also (although possibly at a different date, since it is to come by virtue of a special parliamentary legislation for the purpose, in the terms of Article 348 of the Constitution) in consonance with a similar change in the field of public administration and corresponding changes in the educational system.

The following preliminaries appear to us to be prerequisite to the accomplishment of a change-over of the linguistic medium in the field of legislation and administration of justice:

- (i) The preparation of a standard legal lexicon;
- (ii) Re-enactment of the Statute Book in Hindi in respect of both the Central and State legislation.

For the maintenance of the juridical and judicial unity of the country it is essential that legal terms and expressions should be used in the same significance in all parts of the country.

So far as evolving of legal terminology is concerned, it seems to us necessary to adopt the following plan of action and to carry it out as rapidly as possible:

(1) The present pace of evolving the necessary terminology for the Indian languages in the field of law must be greatly accelerated.

(2) Steps must be taken for the publication, from time to time as they get ready, of glossaries of such terminology, as standard and recognised expressions under the "imprimatur" of a suitable authority.

(3) A rendering of the Statute Book, both Central and State, into Hindi must be projected under the auspices of the Centre. It should be decided as to whether such Hindi versions of the law should not be enacted afresh by the appropriate legislative authority; precise arrangements in this behalf and a programme of action in respect of the Central as well as the State laws should be settled and pursued.

In order that original drafting may commence being attempted in Hindi by persons competent to do so and drafting practices gradually develop in that linguistic medium, it seems to us necessary to allow those States, who may want to do so, to undertake authoritative enactment originally in Hindi itself.

We envisage a transitional period of time during which the Statute Book as well as the case law would be partially in Hindi and partially in English, the Hindi language progressively assuming a larger proportion of the whole. During such a transitional period, resort may be had to the device of texts being made available

in both Hindi and English, one of them being the original text for purposes of the law and the other an authorised translation.

The Union Language And Public Services Examinations

For obvious reasons the linguistic media of the competitive examinations should be generally in keeping with the media of instruction in the educational system.

A distinction may be made between the competitive examinations intended for admission to further courses of training, such as the Indian Navy Entrance Cadets Examination or the National Defence Academy Admission Examination, etc., and competitive examinations held for purposes of recruitment on the results of the competition.

It seems there has not yet been an overhaul of the linguistic media of instruction in some of the training establishments; and probably most of such training continues to be in English, although it may be susceptible to replacement, to more or less extent, by the Hindi medium. Such a review should be made, and steps taken for the language media for the appropriate entrance examinations, being related, on the one hand, to the medium of instruction in the different training institutions, and conforming, on the other, to the changes in the system of Secondary education taking place in the country.

If in view of this, English has to be displaced partly or wholly as the medium for these examinations, it might be necessary to introduce regional language media in place of English, as the Secondary education in most parts of the country has now switched over from the English language medium to the medium of the regional language. This might entail a region-wise decentralisation of the entrance examination and, consequentially, a quota system. There are, however, very important distinctions between the adoption of the quota system for admission to training establishments and the adoption of such a system for purposes of actual recruitment to the all-India Services at the highest level of the administrative cadres, where the issue arises.

Having regard to the linguistic abilities that would be needed by members of the all-India and Central Services in future, it would be legitimate in our view to introduce a compulsory paper in Hindi after due notice. In order that non-Hindi students may not be unduly handicapped in the transitional period, the paper may, to start with, be of a fairly low standard and treated as only a "qualifying paper" and later, after due notice, again it may be raised to the status of other compulsory papers as a "marking" and fully competitive paper. Further, candidates having one of the South Indian languages as mother-tongue may be exempted from answering one or two stiffer questions in the Hindi paper which the candidates whose mother-tongues are closer to Hindi may be required to answer.

To equate Hindi candidates with non-Hindi candidates the former should be required to offer a paper, to be answered in their linguistic medium of the general examination, out of a variety of options including subjects of cultural interest bearing on South India and languages of the Eighth Schedule other than Hindi.

We do not see sufficient justification for the suggestion that the "compensatory provision" for Hindi candidates should be that they must offer a paper in a regional language (or a South Indian language) other than Hindi. .

Provision may be made for testing candidates for the all-India services examinations in English through specific papers even after the medium of examination is changed to a different language or languages.

As regards the language medium for the combined competitive examination through which candidates are recruited for the all-India and higher Central Services, the principal difficulty arises out of the fact that for obvious reasons it will be *prima facie* extremely difficult to attain satisfactory standards of "moderation" if the competition is held in linguistic medium anything as numerous as the thirteen regional languages. If the number of linguistic media for the examination exceed the limits of manageability with reference to satisfactory standards of moderation, quota system may become inevitable unless the character of the examination itself is changed.

A quota system would break up the character of the existing all-India Services and would lead to fragmentation of the all-India competition and to deterioration in the quality of recruits to the all-India as well as higher Central Services. Considering the present-day calls on the administrative personnel, we would strongly discountenance proposals leading to any such deterioration in the quality of the recruits to these Services. In the case of the personnel of the all-India Services, the chief consideration even from the point of view of each region exclusively regarding its own interest should be "quality" and not proportionate share in the volume of employment. For like reasons quality is more important in the case of the higher Central Services as well than a proportionate regionwise distribution of the employment available.

On the subject of the linguistic medium of the competitive examination for these Services we, therefore, conclude as under:

(a) So far as the all-India and Central Services are concerned (and this would apply, unless otherwise provided, also to other all-India Services created hereafter), the alternative of the Hindi medium in addition to the existing English medium may be introduced after due notice. As and when other regional languages become a medium of instruction in the universities up to the

graduation stage as Hindi has done, the admission of other linguistic media will have to be considered.

Suitable standards will have to be laid down as to what degree of progress as a medium should have been made in university education in respect of any language before its eligibility as a linguistic medium for the competitive examination for recruitment to these Services may be considered.

The medium of the English language may be continued as an alternative for as long as may be necessary: if, eventually, a position should arise when this alternative could be dispensed with, such dispensation should of course be made after a sufficiently long notice.

(b) While "moderation" might still be practicable so long as the number of linguistic media is manageable, having regard to the availability of examiners with suitable bilingual or multi-lingual qualifications, a stage might arrive when the admission of further linguistic media would be found impracticable.

Before such a stage is reached the Union and State Governments must take mutual counsel and decide whether (1) they would accept a change in the scheme of recruitment to the all-India Services or, in the alternative, (2) agree upon a limitation in the number of the linguistic media, or (3) make other appropriate changes in the system of the examination.

(c) We hope and trust that before the contingencies contemplated in (b) above eventuate, the progress of Hindi amongst non-Hindi-speaking university graduates generally would have advanced sufficiently to admit of their competing on equal terms with Hindi-speaking candidates at these examinations through the medium of the Hindi language.

And until then, the availability of the English medium would give to such of the non-Hindi-speaking candidates as may need it an alternative sufficient to safeguard their legitimate interests.

Some of us entertain the hope that it would not, in the upshot, be necessary for the Union and State Governments to make the difficult choice presented by the alternatives in the last sub-paragraph of item (b) above.

As a measure of general encouragement to linguistic studies so badly needed in the special circumstances of this country, the concerned authorities should revise the list of optional subjects tenderable at the various Public Service Commission examinations and consider whether greater scope should not be allowed for the subjects of languages and literatures in the different Indian languages.

In order that candidates preparing themselves for the U.P.S.C. competitive examinations with the Hindi medium may not be handicapped, the State Public Service Commissions might consider allowing the option of the Hindi medium also for their corresponding

examinations. In that case the latter examinations would be held in the regional language medium as well as in the Hindi medium besides, until the transition is completed, the English medium.

Propagation And Development Of Hindi And Regional Languages

It is partly due to the patriotic and highly creditable work done by voluntary agencies in the field of Hindi propagation in the non-Hindi areas over the last 35 years that it was at all possible for the Constituent Assembly to think in terms of the adoption of an Indian language for the official purposes of the Union in the place of English.

Since the adoption of the Constitution, this work has assumed a different aspect and it is now necessary that this responsibility is "sponsored" officially.

From what we have seen of the working of voluntary agencies in this field it appears to us that steps ought to be taken in the following directions for the more systematic organisation and expansion of the work of propagation of Hindi:

(1) Co-ordination of work among the various agencies, and where necessary demarcation of their activities.

(2) Survey of their requirements for the purpose of adequate expansion in their allocated fields of activity.

(3) The introduction of some measure of uniformity and comparability in the standards of their examinations; and ensuring that proper methods are adopted and appropriate academic standards maintained in the conduct of the examinations.

(4) Provision of aids for improvement of teaching methods and greater facilities for teachers' training.

(5) Securing an appropriate and graded supply of suitable text-books for the different regions of the country and for different categories of persons receiving Hindi instruction; supply of supporting reading matter and literature for the benefit of neo-literates and special classes of pupils, like children, women, etc.

(6) Ancillary to the propagation of the Hindi language the provision of reading-room and literary facilities for those recently made literate in Hindi.

We recommend that the Central Government should make liberal financial assistance available to the voluntary agencies for enlarging and improving their activities in the various ways referred to above.

Organisationaly the Government of India are assisted in discharging their responsibility to propagate Hindi in the non-Hindi areas by the Hindi Shiksha Samiti which comprises one representative from each of the non-Hindi-speaking States and two representatives in all from the Hindi States.

The work done under the auspices of the Union and State Governments in the field of development and

enrichment of Hindi (apart from terminological work) is reviewed.

A greater and growing approachment amongst the various Indian languages and a wider understanding and comprehension of the varied cultural inheritance of India would be promoted by the encouragement of studies in the field of linguistics and philology; and such studies and research deserve every encouragement at the hands of the Union and State Governments.

There are tremendous opportunities to linguists working in the field of Indological research to help in promoting a greater integration of the country.

Standardisation Of Indian Scripts

Almost all the Indian scripts have been derived from the Brahmi script. Practically all the Indian scripts, except for Tamil, have almost the same alphabet; in Tamil, the principal difference is the absence of aspirates.

The Devanagari script accounts for an even larger proportion amongst the different scripts in India than the Hindi language accounts for amongst the speakers of the different languages in the Indian population. If, therefore, there is to be one script for the purpose of writing in all Indian languages, the best claimant amongst the Indian scripts would certainly be the Devanagari script.

For a long time, thoughtful persons have been reflecting how powerfully it would make for the integration and unity of the country if a uniform script could be adopted for all the Indian languages, vastly facilitating the study of other languages and literatures in each region. Several eminent persons, including Lokmanya Tilak, Mahatma Gandhi and Pandit Jawaharlal Nehru, have advocated this view.

The adoption of the Roman script as the common script for all Indian languages is advocated by some persons. The pros and cons of the Roman and Devanagari scripts as the common script for Indian languages are examined, and we conclude that, on a balance of considerations, there are no particular advantages to be gained by adopting the Roman script, and that the case for Devanagari as the common script is conclusively stronger.

Having regard to all these considerations, we would advocate the adoption of the Devanagari script optionally for the writing of other Indian languages besides the Union language.

A script is only a convenience as distinguished from the language, which in some way, is a cultural embodiment; for the standardisation or reform of script, therefore, there is less room for objections comprehensible in the case of the language.

Reform Of The Devanagari Script

In the field of the Devanagari script reform vastly

more useful than the "perfect solution" to be evolved at an indefinite time in the future is a "serviceable solution" presently commanding itself to the longest number of interested parties. The Lucknow Conference represents such a laudable attempt to bring some of the issues to a conclusion in the matter of script reform and thus registers an advance.

It is urgently necessary to finalise the typewriter keyboard and authoritatively adopt reforms to be made in the Devanagari script which can only be done on the leadership and under the auspices of the Centre.

As in the case of Hindi, so in the case of the regional languages to a more or less similar extent, we do not expect that there would be any insuperable difficulties in the way of adaptation of the script to the requirements of modern mechanical and multiplying aids. Also intrinsically there is no reason why there should be any difficulty about developing stenography in Hindi or any of the regional languages.

Which Hindi?

The terms of Article 351 of the Constitution would be best fulfilled by carrying out programmes of development of the Hindi language along with similar programmes for other languages.

While everybody agrees that the Hindi language to be developed should be as simple and intelligible as possible, there is a real difficulty in this regard in that what is regarded as "simple" in certain areas is found genuinely difficult in other areas and vice versa; where such a difficulty arises both words, deemed simple and familiar in the different parts, should be adopted in the vocabulary and to that extent variant styles developed in the Union language.

Unless Hindi grammar is found susceptible of being, and is in practice actually, simplified for all persons including those whose mother-tongue is Hindi, any considerable amelioration of the difficulties of non-Hindi-speaking persons in learning Hindi by virtue of such simplification of grammar, etc., could hardly be hoped for.

The Press and The Indian Languages

We recommend that the possibility may be explored of providing news services in Hindi and such other regional languages as it may be remunerative to do—this might be more practicable if the Devanagari script is used for transmissions in regional languages also—for the convenience of Indian language newspapers. Besides being a facility and an impetus to Indian language journalism, such a service might be of use for purposes of standardising terms and expressions in Hindi and the regional languages.

Agencies, Etc., For Implementation Of The National Language Programme

So far as the change-over in the Union administration

is concerned, we would emphasise the need for locating the responsibility specifically in a single administrative unit of the Government to initiate, direct, superintend and co-ordinate the operations involved in all departments and agencies of the Union. Provided the unit is enabled to work with sufficient authority, whether it should be a Ministry or a Department within a Ministry or merely a wing or a division of a Ministry would be for the Government themselves to determine.

It would be of advantage, in our opinion, organisationally, to set up at the Centre an Advisory Board, with representatives of States to co-ordinate the activities of the Union and State administrations so far as they impinge upon each other in the implementation of language policies in the fields of law and administration.

We feel that it would be best if a new single agency, which may be called the National Academy of Indian languages, is set up for carrying out the work relating to the development of the Union as well as the regional languages and for other appropriate and connected purposes including the production of text-books and books of reference. On the governing body of the Academy, representation should be accorded to the Union Government, the State Governments, the Universities and perhaps also recognised professional and literary associations drawn from all parts of the country and working in the different regional languages.

While academic and literary opinion should be allowed to have a full say in the evolution of new terminology and the schemes of development of the Union and regional languages of the country, etc., it would be necessary for the Central Government to possess reserve powers for giving directives to the National Academy on matters of policy.

As regards the location of the Academy, we would suggest for consideration the city of Hyderabad.

A Central Library of literatures of all Indian languages and a National Institute for training of language teachers require to be established; it may be considered whether these institutions should be sited alongside the National Academy of Indian Languages.

We recommend that the Central Government should institute a practice of rendering to Parliament annually a report of the progress made during the previous year in regard to the implementation of the language provisions laid down in the Constitution and connected matters, so far as they appertain to the central field of authority.

It is necessary to give wide publicity to the national policy about languages to inculcate a proper perspective in this matter amongst the people at large and to remove unfounded misconceptions.

Concluding Remarks

In spite of apparent diversities of Indian linguistic and cultural patterns, all the important Indian languages

have close and strong affinities. These affinities are a reflection of a basic unity and a common "Indian way of life".

Indian unity is not merely the recent result of "pax Britannica". The idea of an all-India political unity has always inspired Indian political thought; this urge for unification is only the political expression of the cultural identity of Indian life.

The problem of a common pan-Indian linguistic medium is not unprecedented in Indian history. In the past the Sanskrit and Persian languages and in recent decades the English language have served as such a medium.

If energetic steps are taken for promoting a "rapprochement" amongst the various regional languages of the country, within a period of a very few years the "distances" between the different Indian languages would be considerably reduced.

As citizens of a polyglot country, it is essential for us to encourage widespread multilingualism among members of all linguistic regions and to this end to make appropriate provisions in the Secondary and University systems of education.

The language problem is principally one of the contemporary generation. Any reasonable policy steadily and determinedly pursued would furnish an adequate solution as a new generation is brought up on it. Therefore, for a language policy what is important is not so much the *a priori* perfection of a solution but the general acceptance of it by all.

In the solution of the language problem many agencies are concerned besides the Union and State Governments and it is necessary to engage the ready co-operation of all of them. Apart from such agencies—official and non-official—ultimately it is the ordinary citizen who is the arbiter in the matter of new terminologies and new phrases and expressions evolved as a measure of "development" of a language.

It is essential to make a beginning with the use of the new linguistic medium in actual life even as various developments and evolutions are taking place; there must be an interplay of working use and coinage of vocabularies.

Language in its official aspect is only a means for the convenient carrying on of the intercourse between the States and the Union; we have therefore considered the various issues arising in the subject-matter of our inquiry within the framework of the country's constitutional structure.

In language policies it is necessary to be flexible as regards details and time-periods; firm as regards objectives; specific as regards proximate programmes.

The complex linguistic revolution envisaged in the language policy of the country cannot be brought about unless the objective is clearly comprehended, kept in view

being rendered obsolete at an early stage in the process of development. The needs of the future programme emphasise a discriminating attitude in both protecting existing techniques and providing fuller employment, and indicate that additional capital investment and employment or training of new persons has to be oriented towards an improvement in existing techniques.

Principles And Policies

A normal principle of economic planning that whatever the villagers can undertake by way of improved industry in their own village should be organised on a village basis. This would, of course, be subject to physical factors such as location of minerals, availability of transport facilities, etc.

Large schemes of hydro-electric and thermal generation of electricity have been included in the First and Second Five-Year Plans.

Powers to license plants for processing and other industries such as rice milling which affect the working of the programmes of development in the sector of village and small-scale industries should be conferred on the State Governments. Licensing Committees at the Centre and in the States should give adequate representation to the interests of village and small-scale industries.

The essential purposes of the Plan are that the decentralised sector should produce the requisite quantity and quality of goods and that these should actually be made available to the consumers. The various sections of producers will be in need of assured supplies of raw materials, implements and other accessories. To the largest possible extent these supplies should be organised through general purchase and sales co-operatives serving more than one section of producers. On the sales side the products ought to be taken over from the producers as near the place of production as possible. The primary purchase and sale societies which perform these services will form part of a co-operative system which will provide for the needs of all the constituent elements in the sector of village and small-scale industries and which will be closely linked with the agricultural marketing and the general co-operative credit systems. A well-designed buying and selling organisation with branches in all parts of the country is a *sine qua non* of a scheme of planned transformation of the small and village industries.

A far-reaching programme of co-operative marketing and rural warehousing designed to serve the needs of the agricultural sector has been planned. When legislation is enacted for the creation of a Co-operative Development and Warehousing Corporation, provision should be made to include within its scope the marketing of the products of village and small-scale industries.

The agency of State Finance Corporations should be

used for the purpose of providing long-term credits to village and small-scale industries. A special cottage industries section should be set up as an essential part of the structure of each Corporation.

To ensure proper co-ordination, a concerted financial policy should, we recommend, be chalked out at as early a stage as possible by the Reserve Bank, the State Bank of India, State Finance Corporations and the Central co-operative banking institutions.

Framework Of Suggested Measures

The effect of reservation, in general though not in specific terms, can be obtained by overall limitations on production or expansion and through control over the licensing of new establishments.

To the extent that the rehabilitation or improvement of techniques of particular industry requires certain common plants, services, etc., these have been included in the plan of that industry. However, the more general provisions are much more important for small decentralised industry than the specific ones. The provision of efficient systems of transport, money and credit, water and power supply, technical training and advice, throughout the country would alone make possible the evolution of an efficient network of decentralised industry.

Outlines Of Development Programmes

A phased production programme for the handloom industry should be drawn up for the five-year period and should be periodically reviewed. If at any stage there are adequate reasons to think that the programme cannot be worked to schedule, the position should be reviewed and alternative arrangements for obtaining the requisite production of cloth examined.

We consider that hand-pounding of rice should be treated as an integral part of village economy for the purpose of meeting domestic and local demand. Factors which operate to dislodge it from this position should be resisted and counter-acted. At the same time we think that for particular purposes, processing of paddy in the mills will be necessary as long as a possible alternative is not available. We, therefore, recommend that new sheller or combined sheller-huller mills or huller mills or single hullers should not be allowed to be set up and no increase in production above the present level should be permitted during the Plan period, except when hand-pounding cannot be organised: for example, when production in an area where labour is scarce has to be augmented quickly or supply to a new industrial area has to be arranged. In such cases, the mills allowed to be set up should be owned wherever possible by co-operative societies or by the Government.

The Government should examine whether cotton seeds which are not being used at present for oil crushing can

be utilised for augmenting the supply of vegetable oils in the country.

Scheme Of Allocation Of Resources And Employment

The question of flow of resources from the Centre to

the States for meeting expenditure on different types of schemes and the principles and conditions governing such a flow should be treated separately from the allocations themselves.

RAILWAY FREIGHT STRUCTURE ENQUIRY COMMITTEE, 1955—REPORT

New Delhi, Ministry of Railways, 1957. 2 Vols.

Chairman : Dr. A. Ramaswami Mudaliar.

Members : Shri T. N. Singh; Shri D. K. Borooah;
Shri I. S. Puri; Shri V. P. Bhandarkar;
Shri L. K. Jha; Shri A. K. Basu.

APPOINTMENT

The Railway Freight Structure Enquiry Committee was constituted under the Ministry of Railways vide their Resolution No. 6899-TC, dated June 29, 1955, to review the existing freight structure for transport by goods trains in all its aspects in the light of the present developmental economy and to give ample opportunity to the interests concerned to explain their point of view.

TERMS OF REFERENCE

(i) To review the present railway freight rate structure in all its aspects and to suggest what modifications should be made, bearing in mind the needs of a developing economy and the necessity for maintaining the financial stability of the Railways;

(ii) To examine whether the statutory provisions dealing with the responsibility of Railways as carriers need any, and if so what, modification; and in the light of modification proposed whether any adjustment in freight rates is warranted;

(iii) To examine what changes, if any, are needed in the existing constitution, jurisdiction and rules of procedure of the Railway Rates Tribunal, so that the Tribunal might be a more effective and expeditious instrument for adjudication of railway freight matters at a reasonable cost to the litigant; and

(iv) To make recommendations.

CONTENTS

Introduction; A Brief Survey of the History of Rail Freight Rates in India; The General Pattern of the Revised Rates Structure and its Impact on Public Opinion; Basis for a New Freight Rate Structure; The Scale of Rates, the Impact of the Second Five-Year Plan

on its Evolution—The need to keep the Financial Stability of Railways in view whilst Evolving the same; Goods Classification; Industrialisation and Railway Policy; Miscellaneous; Statistical Information; Efficiency; The Liability of Railways for Goods Tendered for Despatch; Railway Rates Tribunal; Committee's Comments on the Minority Note; A Joint Note by Shri I. S. Puri and Shri V. P. Bhandarkar; Summary of Conclusions and Recommendations; Annexures I to XVII.

RECOMMENDATIONS

A Brief Survey Of The History Of Rail Freight Rates In India

In this chapter we have briefly surveyed railway development and industrial growth since the early beginning of railways and the evolution of the Railway Freight Structure vis-a-vis its development. We have referred to the early events which culminated in the historic resolution of 1887, when, for the first time, the Government enunciated the principles to regulate the fixing of rates. We have dealt, in somewhat greater detail, with the changes in the freight structure introduced in 1922, the further refinements effected in 1936 and the major steps towards ultimate standardisation and rationalisation effected by the Revised Freight Structure which was introduced in 1948.

We have recounted the recommendation made on railway rates matters, in reports of various committees, from time to time, and have briefly indicated the impact of the freight structure on the growth of industry and agriculture during the last 100 years.

The General Pattern Of The Revised Rates Structure And Its Impact On Public Opinion

In this chapter we have dealt with the circumstances that led to the introduction of the telescopic freight structure in 1948. We have also given an indication of the principal features of the freight structure and have pin-pointed the criticisms that have been advanced

against some of them, particularly those concerning the structure of the Class Rates and Wagonload Scales, the legs of the telescope, ancillary charges like terminal, short-distance and transhipment charges and the rigidity in the railway freight policy that has been associated with the new freight structure.

Basis For A New Freight Rate Structure

We consider a radical revision of the pattern of the legs of the freight structure necessary. We state why a different pattern need be adopted. We recommend adoption of following pattern of legs for traffic both in "smalls" and in wagonloads:

1	—	25 miles
26	—	75 miles
76	—	150 miles
151	—	300 miles
301	—	500 miles
501	—	800 miles
801	—	1,200 miles

1,201 miles and beyond.

We recommend a regular and progressive increase through a percentage system of rates from the lowest class to the highest class to form an integrated scale of rates covering both class rates and wagonload scales. For this purpose, we recommend a norm or a standard rate, to be called the Class 100 Rate. We have taken the present Class 9 as the most convenient norm and all other classes above and below Class 9 and also the wagonload scales have been expressed as percentages of the new Class 100. We have shown what percentage each class will represent.

We recommend that, for all commodities, there should be a wagonload Classification and a "Smalls" classification.

We also recommend for a few commodities, for which separate "smalls" and wagonload rates will have no special significance, that the rate will apply on an "AQ" (any quantity) basis.

We recommend that there should be a relativity between the rates for wagonloads and "smalls" and we have allowed an increase in the rates for "smalls" as compared with wagonloads to the extent of some 15 to 36 per cent and on this basis we have shown the pattern of the classification for wagonloads and "smalls".

We recommend that the revised classification may be fixed for individual commodities for which at present there is no wagonload classification in the following manner. Where the commodity is reported to move largely in wagonloads, the percentage class rate corresponding to the existing rate will apply for movement in "smalls" and a lower percentage class rate for wagonloads corresponding to the percentage class rate for "smalls".

We have referred to the number of classes that exist at present and we recommend what should be the revised number.

We have dealt with the subject of minimum weight conditions. We are of the opinion that the existing wagonload conditions are on the low side and we recommend that the wagonload conditions should be examined afresh. We have forwarded two recommendations on this subject; one from Shri A. K. Basu with a schedule of minimum weight conditions for wagonloads for all commodities, and the other from Shri Puri and Shri Bhandarkar for commodities for which, in their opinion, an upward revision is necessary.

Shri Puri and Shri Bhandarkar also recommend that for certain articles, for which the classification is subject to a minimum weight per consignment unrelated to the carrying capacity of the wagon, the minimum weights should be raised; also, for explosives, the rule that the minimum charge per consignment is for 54 maunds should be revised and the minimum charge should be for 62 maunds.

To meet the criticism made by some Chambers that the wagonload conditions may prove to be too high for certain commodities for wagonload movements to and from small centres, some of us recommend the policy of adopting intermediate wagonload weights with corresponding higher rates.

We recommend that loading and unloading in respect of wagonloads should be done by consignors and consignees.

We recommend that the wagonload conditions of the forwarding Railway should apply through to the destination, irrespective of break-of-gauge, both in the case of general merchandise and livestock.

We recommend that the terminal charges as such should be abolished, but that this fact should be taken into consideration in evolving the Revised Freight Structure.

We recommend that the additional short-distance charge is not justified and that it may be abolished.

We recommend discontinuance of a separate levy of transhipment charges and of *ghat* charges.

We recommend that the minimum distance for charge should be raised to 25 miles and should apply only once (in bookings) whether the movement is over one or more Railways.

We recommend that the minimum weight for acceptance per package by goods trains should be 20 seers and the charge should be based on 20 seers.

We recommend that the overall minimum charge of Re. 1, 12 annas per ton for wagonload consignments should be abolished.

Shri Puri and Shri Bhandarkar recommend that the minimum charge of Re. 1 per consignment should be discontinued.

We consider that neither maxima nor minima rates should be prescribed in the New Freight Structure.

The Scale Of Rates, The Impact Of The Second Five-Year Plan On Its Evolution—The Need To Keep The Financial Stability Of Railways In View Whilst Evolving The Same

We consider that a Uniform Surcharge on freight rates is not a satisfactory method of raising revenue and we recommend that, if additional revenue is required, it should be acquired by a suitable revision of the scale and taper of telescopic rates.

We have examined the financial position of the Railways during the Second Plan period. We have considered the public views on the financial aspect of railway working.

We have examined the Railways' earnings and expenditure during the Plan period and have reviewed particularly the appropriation to the Depreciation Fund, and we recommend an increase in the appropriation.

We have taken into consideration the adjustments in the expenditure due to an increase in the coal price and due to a rise in costs on account of the inflationary trends, and from these several considerations, we conclude that the gap between revenue and expenditure during the Plan period will be over Rs. 300 crores.

Hence, we recommend that, if the twin objectives, viz. that the Railways play the part they are expected to during the Second Plan period by carrying additional traffic that will be forthcoming, and, secondly, that the financial stability of the Railways is ensured, have to be achieved, it is essential that the existing scale of rates be revised in an upward direction.

We have mentioned the several factors on which a Revised Scale of Rates may be constructed and we recommend the following scale which we consider would be an equitable one and, to a large extent, would meet our requirements:

1—	25 miles	3.60	pies per maund per mile.
+ 26—	75 „	1.40	„
+ 76—	150 „	1.20	„
+151—	300 „	1.05	„
+301—	500 „	0.85	„
+501—	800 „	0.70	„
+801—1,200 „	0.60	„	„
+ distances beyond	0.50	„	„

We recommend that the rates should be introduced on a Block Mileage Basis with blocks of 5 miles up to 500 miles and 10 miles beyond.

Goods Classification

We have briefly dealt with the principle governing the classification of goods and the relationship in the classification of "smalls" and wagonloads.

We have indicated the consideration that influenced

our recommendation to adopt 13 to 27 per cent reduction in rates for wagonloads as compared to "smalls".

We recommend that practically for all commodities, rates should be quoted only at railway risk. Whilst this is our general recommendation, we recognise that there are a few commodities which may continue to be carried at owner's risk, but in regard to which Railway Risk Rates may also be quoted. We recommended that the owner's risk rates for these commodities should be at a level one class below the corresponding percentage class rate and we have listed these commodities.

We have dealt with the anomalies in the classification, which have been complained of by the public.

We have referred to our Interim Recommendation for the setting up of a Classification Anomalies Committee to deal with those anomalies which we have not been able to examine or any fresh anomalies that might arise as a result of our recommendation and we have stated the Government's decision thereon.

We recommend revised classification for some commodities with a view to removing the anomalies.

We recommend revised lower classification for those commodities for which we consider that special consideration should be shown in the interests of industry or more generally in public interest and for certain commodities from cost-of-living consideration.

We recommend that certain groupings in the existing classification may be specially examined by the Anomalies Committee and also any new anomalies that may have arisen in the course of our proposal for reclassification.

In regard to the permanent machinery to deal with the question of classification, we suggest that the Commercial Committee for Interchange, while more or less working to the existing procedure should formally consult and discuss their tentative ideas with representatives of the Federation of Indian Chambers of Commerce and Industry and Associated Chambers of Commerce, across the table before making their final recommendation to the Government. Where necessary, the matter may be referred by their party for the advisory opinion of the Railway Rates Tribunal before a decision is taken.

We recommend that Urea which is used in the plastic industry and which also moves for bona-fide agricultural purposes, should retain its higher classification, but should be given station-to-station rates when moving on the latter account.

Similarly Gypsum moving in limited quantities to specific points for fertilising "Usar" land may be given station-to-station rates.

We recommend different rates for Jute according to as it is unpressed, half-pressed or full-pressed, so as to encourage fibres being offered for transport fully pressed, and we have prescribed qualifying conditions for Full-Pressed and Half-Pressed Jute.

In regard to classification of Oils—Division "D" we forward two recommendations to the Government: (i) 75 per cent rate for wagonloads, and (ii) 65 per cent.

We have dealt with the classification of Coal, Coke and Patent Fuel. Whilst we are unanimously of the opinion that the coal scale needs revision with a view to making it more realistic, we have made two suggestions in regard to the manner of implementing it and we forward both the suggestions to the Government. One suggestion is to assimilate into the freight structure and prescribe 25 per cent rate for Coal, Coke and Patent Fuel when moving in wagonloads with a ceiling, if necessary, at 800 miles or so; the other suggestion is to have a separate scale for coal as follows:

(In pies per maund per mile)

First 25 miles	+ For the next 50 miles	+ For the next 75 miles	+ For the next 150 miles	+ For the next 200 miles	+ For the next 300 miles	+ For the next 400 miles	+ For distances beyond
(1—25) 1.10	(26—75) .36	(76—150) .32	(151—300) .24	(301—500) .15	(501—800) .10	(801—1,200) .07	(1,201 and over) .05

With a view to removing the disparity between freight costs for long-distance movement of coal by railway and by coastal steamers, we recommend that the freight rates on the railway portion of the rail-cum-sea route should be on the basis of the combined distance from the collieries to the port and from the port to the destination point, and we also recommend that if the gap needs to be further reduced, any subsidy that might be considered by the Government should be met from General Revenues and not from Railway Revenues.

Industrialisation And Railway Policy

We have dealt with the complaints made about the rates structure introduced in 1948 and the difficulty in obtaining station-to-station rates. In view of the standardisation of the rates structure the scope for quoting station-to-station rates became limited.

With the universal application of wagonload scales recommended by us the occasion for quoting station-to-station rates will continue to be limited.

We have referred to the recommendation made by us when our advice was sought by the Government that all concessional rates for the carriage of raw materials and finished products for established iron and steel industries may be cancelled.

We have examined the suggestion of the Estimates Committee to have a separate Directorate in the Railway Board's office for quoting station-to-station rates. We consider that this may not be necessary and we recommend that individual Railway Administrations should

have power to quote station-to-station rates and grant concessions at a percentage below the standard rate. This percentage should be laid down by the Railway Board. Concessions below this limit may be granted by the Railway Board after obtaining the advisory opinion of the Railway Rates Tribunal except in urgent cases where they may grant the concession and make a reference subsequently to the Railway Rates Tribunal.

We are unable to accept the suggestion of the Indian National Steam Ship Owners' Association in the matter of quoting reduced rates for traffic moving to and from ports when carried by ships on the Indian Register. We recommend, however, that the Railways should assist generally in the export drive. This recommendation does

not bear directly on the Indian shipping, but embraces all shipping in the interest of enabling export of Indian products abroad. As Railways will only be one of the departments, which will be called upon to make such a concession, we recommend that there should be some authority who will be in a position to assess the situation and we recommend the formation of a high-level committee with representatives of the Commerce and Industry Ministry, Finance Ministry, Railway Ministry and such other Ministries as may be concerned in promoting the export trade of the country. The committee will function with a small secretariat specially constituted for the purpose.

We recommend that the Committee may also examine the provision of priority transport for export needs.

We suggest for consideration of the Tariff Commission that in arriving at the protection or the quantum thereof, they may assume the existing level of rates and leave it to the parties to make representations to the Railway Board for concession in rates, if necessary.

We have dealt with the question of concession to underdeveloped areas. We have drawn the attention of the Government of India to the practice of the Canadian Government which grants low concessional rates for wheat moving from some territories, the value of the concession being reimbursed to the railways by the Federal Government of Canada. We recommend that this practice may be adopted for assisting the backward areas in India.

In regard to Assam, we recommend the proposal of

treating the distance to and from Assam the same as what it was before Partition or that a variant of this treatment which meets the situation may be devised for a period during which the industrial development of Assam may be expedited.

In this connection the present practice of levying ferry charges for traffic passing over Sakrigali-Manihari-ghat in the shape of a lumpsum mileage charge as for 33 miles, calculated separately on the first leg of the telescope, violates the principle of charging on continuous mileage. We recommend that the ferry mileage should be added to the total mileage for charge and not be separately calculated.

In regard to products of cottage and hand industries, we recommend that, to start with, a concession of 25 per cent of the normal freight rates be granted when these products are booked by recognised co-operative societies on the authority of a certificate issued by the All-India Khadi and Village Industry Board, the All-India Handicrafts Board, Director of Industries of State Governments and other bodies, which might be recognised by the Union Government for this purpose.

Though, at first sight, the proposal of a Freight Pool appears attractive, on further examination of the question, we consider that this method of encouraging certain areas where industrial development is backward is not justified.

Miscellaneous

We recommend that the present relativity between goods and parcel rates will have to be maintained if diversion to parcel service is to be avoided. We have not gone into the structure of parcel rates, and these should be reviewed in the light of the freight structure that we have recommended.

We are opposed to making any change in the statutory obligations of Railways, according to which, at present, they have to carry all the traffic offered to them and we are, therefore, unable to accept the suggestion that the Railways should decline to carry traffic for short distances.

We recommend telescopic rate structure to be generally adopted on Indian railways for livestock and other animals; the rates should apply at railway risk and no separate terminal charges are to be levied. In through booking between different gauges, the rate applicable at the forwarding station would apply through to the destination.

We consider it feasible to introduce the procedure, at least at large goods sheds, of obtaining advance information of the probable date of the arrival of the consignment and communicating it to the consignee where his address is known, so that he may make preliminary arrangements for unloading wagons.

We recommend that salt in bulk may be moved

when booked to private and assisted sidings under suitable precautions to prevent corrosive action on the steel plates of the wagons.

We recommend to the Government the examination of a proposal that suitable trucks may be constructed for the movement of motor-cars, so that more than one car may be loaded either horizontally or vertically, and the incidence of cost both to the users and to the Railways under the existing rates may be minimised.

We recommend the examination of special type of steel or other covers for open wagons and flats for protection against theft and rain as are used in some countries and as are also used in modern shipbuilding in what are called McGregor type of covers used over McGregor holds.

We strongly urge that steps may be taken in the matter of providing special types of vans like tank wagons, refrigerator vans, etc.

We consider that standard rules should be provided and standard charges be levied for supply of cranes, for all Railways.

We consider that the Railways should take timely action to develop the existing capacity of inward and outward goods sheds with a view to meeting the complaint that at several stations, there is no outward wharf and goods brought for booking are exposed to the wind and weather in open space.

We suggest that an educative campaign may be undertaken amongst the workers themselves in certain big stations at least, in the matter of handling goods, and a suitable inspectorate may be provided to inspect the loading and unloading of these goods and thereby to educate the workers on the methods to be adopted in such matters.

We consider that the ferry charge for coal traffic should not be levied separately as a lump-sum charge and recommend that coal traffic be charged on the through distance, inclusive of the ferry mileage, as in the case of other traffic.

Statistical Information

We have referred to the sample survey that we conducted for obtaining figures of zonal movement in certain important commodities and we recommend that these figures may be given as a permanent annual feature in the statistics published by the Railways and that the results may be derived from a full compilation and not barely from a sample analysis. We consider that during the high tempo of development economy when heavier and heavier loads will fall on the Railways, these figures will be of great practical assistance not only to the Commercial and Rates Officers, but also to Operating Officers.

We have referred to the sampling survey conducted particularly by the Inter-State Commerce Commission through continuous sampling of way-bills and we

recommend to the Government that the method of compiling statistics on the basis of sample surveys may usefully be encouraged on the Indian Railways for the purpose of investigating particular problems from time to time.

We have referred to cost studies in other countries and to the cost figures that we have on the Indian Railways. We have drawn the attention of the Government specially to the cost figures dealing with coaching traffic and have pointed out that if passenger traffic does not pay adequately, additional burden on goods traffic becomes inevitable.

We consider that there is scope for more detailed statistics to enable costs of large-scale and regular movement of important commodities being ascertained.

Efficiency

We have examined the efficiency of the Railways in the light of the criticism that increased efficiency will secure sufficient funds for the Railways. We find that the Railways are making a sustained effort for improvement. We, however, consider that, nevertheless, we must face the fact that the Railways should have additional revenue by an increase in the freight rates to meet their expanding needs.

In connection with the question of operating efficiency, we consider that smaller zones of 3,000 miles or so will conduce to better control and operating efficiency and we consider that a bold attempt be made to review the position and re-ify it at an early date.

The Liability Of Railways For Goods Tendered For Despatch

In this chapter, we have dealt with the statutory provisions governing the responsibility of the Railways as carriers. We have described how the Railways' liability, which is ordinarily that of a bailee, may be limited, under certain conditions. In this connection, we have dealt particularly with what is called owner's-risk liability and the developments in this regard from time to time, culminating in the amendments to the Indian Railways Act 1949. We find that there is, at present, virtually no difference between the Railway Risk and the Owner's Risk Liability except in regard to the burden of proof.

We recommend that the general policy of the Railways should be to quote rates at railway risk and with the exception of a few commodities, the classified rates in the revised rates structure should be applicable at railway risk only. With reference to livestock also, we recommend that railway risk rates only should apply.

We have referred to the claims position on the Railways, and the several useful reports that have been made from time to time in the matter of claims. We have also referred to the evidence that we have received

on this subject and the large volume of suggestions from the public to prevent the heavy incidence of claims.

We consider that the question of prevention of the causes leading to claims boils down largely to one of prevention of crime in the shape of thefts and pilferages whether inside the Railway premises or outside, in which both Railways and State Governments must play their part if this crime is to be successfully checked.

We recommend that the Railways should assume common carrier liability and the change-over should be effected within one year from the coming into force of the revised freight rate structure. Some of us are doubtful whether the administrative and organisational reforms can be brought about within a period of one year.

We consider that packing conditions may be reviewed generally and the list of commodities for which compulsory packing conditions are imposed may also be enlarged, and the revised packing conditions may be brought into effect simultaneously with the assumption by the Railways of the liability of the common carriers.

We recommend that in regard to "non-delivery" the position may be clarified and suitable amendments may be made in the Act to provide for specific inclusion of the term "non-delivery".

We recommend for sympathetic examination the question whether Railways cease to be bailees once the free time for wharfage is over.

We recommend that suitable amendments may be made in the Railways Act to provide for certified copies of Forwarding Notes and other documents being admitted as evidence without the originals being produced. This will help in the speedier disposal of claims and avoid hold-up of railway records in most cases.

We recommend that the list of "Excepted Articles" be reviewed and certain commodities like electric bulbs, silk apparel and musical and scientific instruments should no longer find a place in this list.

We recommend that the notice of claims served on the Chief Commercial Superintendent of a Railway should be valid in law and necessary amendments to the Act should be carried out to provide for this.

Railway Rates Tribunal

We have dealt with the developments in the matter of Government control over Railway Freight Rates. We have referred to the provision in the Indian Railways Act, IX of 1890, of a Commission to deal with questions of undue preference. This Commission, however, was never set up. We have referred to subsequent attempts by the public and the recommendation of the Acreworth Committee for the constitution of a Railway Rates Tribunal. We have also referred to the appointment of the Railway Rates Advisory Committee and its main features and functions and the subsequent setting up of the Railway Rates Tribunal.

We have dealt with the constitution of the Railway Rates Tribunal and referred to the public opinion in this matter.

We recommend that the constitution should be amended and the Tribunal should consist of an experienced High Court Judge as president with two other members chosen for their knowledge or experience of commercial, industrial and economic conditions in the country, or of the commercial working of railways. We further recommend that the President and members of the Tribunal may be appointed for a period of five years and may, in suitable cases, be eligible for reappointment. The appointments, we recommend, should be made by the President of India on the recommendation of the Law Minister, the Minister for Industry and Commerce and the Minister for Railways.

We have considered the present jurisdiction of the Tribunal and public opinion in this regard.

We recommend that the jurisdiction of the Tribunal be divided into mandatory and advisory functions—mandatory functions where the judgment of the Railway Rates Tribunal is binding on the Government in matters relating to undue preference, unreasonableness of rates and unreasonableness of other charges; advisory func-

tions relating to classification and to references by the Central Government in matters falling within Section 45 of the Act and in cases where the Railway Board decide to grant station-to-station rates involving reductions beyond the limits prescribed by the Board for individual administrations.

In the matter of station-to-station rates, where such reduction is granted by the Railway Board on the recommendation of the high-level committee of representatives of various Ministries of the Union Government, including the Railways, to assist the export drive, we recommend that such decisions may be given effect to by the Railways without obtaining the advisory opinion of the Railway Rates Tribunal.

We recommend that necessary provision be made in the Indian Railways Act, so that the Railway Rates Tribunal may adopt an "informal procedure" in dealing with cases where a formal hearing is unnecessary and may be dispensed with.

We recommend that the question of permitting the Railway Rates Tribunal to award refund of overcharges for a particular period may be considered in greater detail by the Government.

RAIL-SEA CO-ORDINATION COMMITTEE, 1955—REPORT

New Delhi, Ministry of Transport, 1958. 121p.+viip.

Chairman : Justice Shri N. S. Lokur.

Members : Shri B. Das; Shri M. Govinda Reddy; Shri S. R. Kalyanaraman; Shri B. R. Patel
(replaced by Shri P. R. Subramanian).

Secretary : Shri D. Mahadevan.

APPOINTMENT

The Rail-Sea Co-ordination Committee was constituted under the Ministry of Transport in June, 1955.

TERMS OF REFERENCE

(1) (a) To examine the reasonableness of freight charged by coastal shipping with reference to its costs of operation;

(b) To examine the existing pattern of trade movements within the country of commodities which could suitably move by sea and suggest measures to ensure effective co-ordination between the Railways and Coastal Shipping with a view to promoting movement of such goods by sea and with particular regard to:

(i) the need for promoting development of coastal shipping on sound lines;

(ii) the need for avoiding overlapping between the two forms of transport;

(iii) the need for developing adequate coastal shipping in the larger and long-term interests of the country;

(iv) the possibility of extending through booking arrangements between Railways and Shipping for movement by combined rail-sea route, wherever possible.

(2) To advise whether any standing machinery should be set up for considering all problems concerning rail-shipping coordination or allocation of traffic between the two forms of transport.

CONTENTS

Introductory; Historical Review of the Coastal and Adjacent Tonnage and Trades; Conference Arrangements Regarding Freight Adjustments; Commodity-wise Analysis of the Volume of Sea and Rail Borne Traffic along the Coast and between Defined Coastal Areas; Comparison made of Relative Levels of Freight Rates and Service Characteristics by Rail and Sea Routes; Main Problems of Coastal Shipping Industry; Problem of Co-ordination in other Countries; Development Plans

for Coastal Shipping Tonnage and Additional Cargo Requirements for the Economic and Full Employment of the Target Tonnage visualised for the Second Plan Period, Proposals for Co-ordination and Diversion of Traffic in the Short-Term—The Long-Term Solution; Rates of Freight by the Sea Routes in relation to the Costs of Operation; Through Booking Arrangements by Rail and by Sea; Standing Machinery for Co-ordination; Some General Suggestions for Making the Sea Route more Popular and Attractive; Summary of Recommendations; Annexures Containing Statements.

RECOMMENDATIONS

Re: Item 1(a) Of The Terms Of Reference

We recommend that a general enhancement of 15 per cent in the rates of coastal freight as were in force prior to October 15, 1955, be made without any distinction as between rates for the West Coast trade and the Wider Coast trade and that in regard to the freight rates for coal traffic, an appropriate enhancement be granted with retrospective effect as from April 1, 1956, in view of the undertaking given in this regard by the Government.

We also recommend that the freight rates for salt should generally be brought up to the level of the freight rates for coal in the reverse direction. As, however, such a revision is likely to bring about a sudden and steep enhancement in the freight rates for salt they can be revised in the first instance from Saurashtra port to Calcutta and from Tuticorin to Calcutta as follows:

Commodity	Stations		Rate Per Ton
	from	to	
Salt	Saurashtra Ports	Calcutta	Rs. An. P. 37 12 0
"	Tuticorin	"	28 8 0

The enhancements recommended are on the basis of the operating costs for the year 1954-55 with due allowance for increases in fuel and other costs that have taken place since then and up to now. In the absence of any special disturbing feature, the revised rates are to remain in force for a period of two years, i.e. up to March 31, 1959. The matter will be reviewed, thereafter, in the light of such additions to the fleet as may have been made, and such increases in operating expenses and improvements in the turn-round of ships at ports as may have been brought about.

Re: Item 1(b) Of The Terms Of Reference

We recommend that in the context of the general policy of development of shipping and the overall transport shortage anticipated during the second half of the present Plan period the Government should take urgent steps to ensure attainment of the target of 4.12 lakh

GRT for the coastal and adjacent trades as indicated in the Second Five-Year Plan.

Further, we consider it imperative that, whatever be the method adopted, as much of this tonnage should be reached by the end of the year 1959 as possible as thereafter we anticipate a sharp and substantial increase in the demand for additional transportation facilities.

With this total tonnage of 4.12 lakhs of shipping, we expect that it will be possible to carry about 50 lakh tons of cargo and that if necessary steps are taken cargo pertaining to adjacent trades carried in our ships may increase to about 8 to 10 lakh tons, leaving a total requirement of about 40 lakh tons of cargo in the purely Indian coastal trade. Against this the existing movements by coastal shipping may be expected to increase by about 10 per cent in the Second Plan period over the figures of 1954. The main cargo availability would, therefore, be 31.6 lakh tons leaving a balance of 8.4 lakh tons to be found by promotional means. This may be split up into 6 lakh tons in the loaded direction from East to West on the Wider Coast and the balance in the opposite direction, also on the Wider Coast.

On an analysis of the present pattern of movements, the total volume of general cargo available for diversion from the Rail to Sea route is only of the order of 2 to 3 lakh tons.

It is possible to find additional cargo of 6 lakh tons in the Wider Coast in the East to West direction almost entirely from Coal.

There is also scope for finding some cargo from other items like foodgrains, fertilisers and iron and steel.

In the reverse direction, the main hope of securing additional cargoes is a slight increase in salt shipments and some movements of cement. There may also be increasing volumes of trade in bitumen and packed petroleum products from the Bombay refineries to other coastal ports.

We recommend that in respect of these items of traffic a positive policy of diversion to the sea or rail-cum-sea route be adopted to the extent necessary for adequate utilisation of coastal shipping and in such a manner as to afford maximum relief to the Railways notwithstanding a slightly higher incidence of freight charges which may result.

We do not, however, recommend any enforced diversion to the sea route of any traffic of the private parties except in the case of coal.

So far as coal is concerned, we consider it imperative for the scheme of diversion of traffic to the sea route that some arrangement is made to ensure that the price to consumers in the coastal areas to which coal is diverted is not much higher than if their requirements had moved by rail.

We understand that the question of evolving a scheme of selling coal at a uniform price throughout the country

or, alternatively, in several zones into which the country is to be divided is under consideration. If such a scheme is evolved, our recommendation will merely involve pooling of freight for all movements including those by the sea route.

In case such a scheme does not materialise, other specific freight equalisation arrangements will have to be introduced and we leave it to the Government to decide as to how this is to be done.

As a long-term solution for restoring the inherent advantages and the competitive position of coastal shipping, we recommend that, as in other countries, every effort be made to reduce terminal costs for transportation by sea through the provision of improved port facilities for avoiding or minimising delays to coastal shipping, and wherever possible, if necessary even by charging preferential port charges for coastal shipping.

In this context, we feel that we cannot too strongly emphasise the need to improve the working conditions at the ports in every way, so that the enormous national loss that results from undue delays to ships may be avoided.

We suggest also that the assessment made by the Ministry of Transport in regard to the provision for increased capacity of ports during the Second Plan period be reviewed in the light of our remarks made in this connection.

We recommend that the facility of through booking by the rail-cum-sea route as at present in force be continued and extended wherever possible.

Rc: Item 2 Of Terms Of Reference

We recommend that the allocation of different descriptions of traffic as between the rail and sea routes be dealt with by a sub-committee of the Central Board of Transport of which senior representatives of the various Ministries are members. This sub-committee should review the tonnage and cargo availability position from time to time and decide on the nature and volume of cargo which should move by the sea or rail-cum-sea route, so as to ensure adequate employment of available shipping tonnage on the one hand and give maximum relief to the Railways on the other.

Apart from this sub-committee at the Centre to deal with the general over-all position, we recommend that local committees be set up at each of the major ports to implement decisions of the Government based on the recommendations of the sub-committee and also to examine all questions concerning local matters of detail.

We do not at this stage recommend the setting up of any standing machinery for purposes of freight fixation. We consider that future variations should, as far as possible, be confined to general increases or decreases and as the volume of work involved would be very limited, a standing machinery as such will not be

required. Whenever there are any special circumstances justifying a detailed enquiry, the Government could exercise their powers under the Control of Shipping Act to set up an ad-hoc board for the purpose.

Additional Recommendations

The recommendations we have made for freight increases include an allowance of Rs. 37.14 lakhs per annum towards rehabilitation and the building up of reserves. We recommend that the Government should take suitable steps to ensure that the funds are so utilised.

Although as between the West Coast trade and the Wider Coast trade we have recommended that the same rate of increase be allowed now, we suggest that the Government may arrange for an examination of the question whether the freight tariff of the West Coast should not be entirely detached from that of the Wider Coast at a convenient opportunity so that rates in respect of each of these services and variations therein, made from time to time, may appropriately reflect the economies of the particular service.

We consider that there is scope and need for the rationalisation of the present tariff on as scientific a basis as it is possible without disturbing the total financial return and without causing too violent a variation in the relativity of rates at any one time.

The Coastal Conference has agreed to consider this subject at an early opportunity after the Government has taken its decision on our report.

We recommend that this be further followed up.

We recommend that in order to enable future proposals for variations in the coastal rates to be dealt with satisfactorily and expeditiously suitable arrangements be made to develop an organisation which will collect and maintain necessary statistics in appropriate forms to be prescribed in advance so that they could be used readily for purposes of cost estimation. In our opinion this organisation is now best developed in the Directorate-General of Shipping and that it should work in close collaboration with the Coastal Conference.

Subject to the rationalisation of the freight structure, we are of the opinion that, in future, freight revisions should, as far as possible, be confined to general increases or decreases and that such variations should be made only when any important change involving substantial financial implications takes place in the coastal trade or, alternatively, when over a period of time a number of changes have occurred the cumulative financial implications of which are substantial.

We recommend that consideration be given to the possibility of granting concessional terms for loans advanced for purchase of ships for coastal operations.

We recommend that preferential berthing facilities at ports for general cargo ships on the coast be granted.

We further suggest that consideration be given for the levy, wherever possible, of port dues, wharfage and other charges on coastal shipping on a concessional basis.

We recommend that the Coastal Conference should evolve rationalised sailing schedules with a view to ensuring regular sailings and calls at as many ports as possible, as the prevailing shortage of general cargo is, in a substantial measure, due to the irregular clearing opportunities offered.

We suggested to the Coastal Conference consideration of the possibility of their opening common City Booking Offices and Warehouses in the larger cities where all cargoes could be received for despatch by the first available vessel. The Conference did not receive

the suggestion favourably. We consider, however, that the matter should be reviewed by them, as it appears to us that they have not appreciated the full advantages of opening of joint booking offices at the principal ports.

We recommend that detailed examination be made of the economies of topping up coal cargo vessels at Visakhapatnam, coming short-loaded from Calcutta, due to the draft limitations in river Hooghly.

We consider that, in future, control should be exercised by the Director-General of Shipping over coastal shipping in such a way that the entire pool of coastal tonnage is used to the best advantage of the country and as an effective limb in the co-ordinated transport arrangements.

RAILWAY METRIC COMMITTEE, 1955—REPORT

New Delhi, Railway Board, 1957. 82p.+xxxvpp.

Chairman : Shri S. L. Kumar.

Members : Shri B. S. Sindhu (replaced by Shri C. S. Lal); Shri V. Venkataramayya (replaced by Shri K. C. Sood); Shri L. C. Mohindra; Shri B. R. Kinra; Shri K. V. Kasturi Rangan (replaced by Shri H. Ramamoorthy); Shri R. E. de Sa (replaced by Shri B. C. Ganguli); Shri L. T. Madnani (replaced by Shri N. N. Tandon); Shri G. D. Khandelwal (replaced by Shri P. C. Mathew); Shri D. R. Suri; Shri D. S. Mehta (replaced by Shri I. C. Bhatt); Dr. B. Lall; Shri P. N. Murti.

Secretary : Shri J. P. Gupta.

APPOINTMENT

The Ministry of Railways (Railway Board) in pursuance of the standing Metric Committee's recommendation set up an ad-hoc Railway Metric Committee in terms of the Board's letter No. E55 CO1/39/3, dated August 20, 1955.

TERMS OF REFERENCE

- How the change-over from the present system to the metric system should be effected.
- Phasing of the change-over.
- Financial implications.

CONTENTS

Introductory; General Preparatory Steps; Administrative and Organisational Measures; Central Standards

Office; Civil Engineering Branch; Mechanical Engineering Branch; Production Units; Signal and Tele-Communication Engineering Branch; Electrical Engineering Branch; Stores Branch; Traffic and Commercial Branch; Medical Branch; Accounts Branch; Conclusion; Summary of Financial Implications; Summary of Recommendations; Appendices I to VII.

RECOMMENDATIONS

Recommendations For Immediate Action

A Metric Cell should be set up immediately under the Additional Member (Mechanical) of the Railway Board to plan and direct the change-over to the metric system on the Railways. The Cell should consist of one Joint Director from the Mechanical Engineering branch and one Deputy Director each from the Civil Engineering, Stores and Traffic (Transportation and Commercial) branches.

The Railways should initiate early action in the matter of recalibration of weighing machines and weigh-bridges to show in addition the metric units of weights.

The Central Standards Office should immediately select suitable metric scales for use in Engineering Drawing Offices and issue a directive to all Railways on this subject.

The Civil Engineering Departments of the Railways should work out the station-to-station distances in kilometres from the longitudinal sections, in advance of the actual fixation of kilometre posts, and supply these particulars to the Commercial Departments, not later than

the end of 1957, to enable timely revision of fare and rate tables.

The Railways should be advised immediately to commence marking of tare weight, carrying capacity, floor area on the existing and the metric units on all goods stock during periodical overhaul.

Other Recommendations

The Railway Board Metric Cell should arrange for the immediate revision of the Railway Board's codes and publications, particularly the Schedule of Dimensions, I.R.S. Limits and Fits, Way and Works Manual and State Railway Engineering Code.

Metric Cells should be set up in each branch at the Headquarter Office of each Railway for planning and effecting the change-over.

The expeditious implementation of the change-over will depend on the availability of an adequate number of experienced draftsmen. In order to attract and retain suitable men, the number of additional posts in the higher grades in major Drawing Offices should be considerably increased during the period of the change-over and the outstanding among them should be promoted to fill additional gazetted posts to supervise this work.

All recruiting agencies for the Railways should include an elementary test of the knowledge of the metric system in their syllabi.

In order to adopt the metric system, mere endorsement of the exact equivalents of inch dimensions on the drawings of standard engineering equipment will ordinarily be of little practical utility. Redesigning of the normally replaceable assemblies in our standard equipment including rolling stock would, in most cases, be inescapable. There should be simultaneous development of designs for new standard equipment based entirely on the metric system.

It would be futile to undertake any revision of designs and drawings of non-standard equipment, including non-standard rolling stock, which will not remain in service after 1970. Re-examination should, therefore, be confined mainly to the existing standard designs and drawings of equipment likely to remain in use beyond 1970. Such re-examination for the adoption of the new standards should be so carried out as to reduce the element of redesigning to a minimum and the leading dimensions of standard engineering equipment should, as far as possible, remain unaltered.

Development of new designs of equipment should aim not only at the complete adoption of the newly developed metric standards but also result in such leading dimensions as would be convenient to trade and industry from the point of view of facility of manufacture and of its subsequent maintenance.

The Central Standards Office should take immediate action in the matter of revision of standard designs and

drawings, particularly those of standard locomotives to be manufactured in the immediate future. Early availability of new designs for the existing standard equipment would reduce the transitional difficulties in respect of new equipment and may also reduce the period of complete change-over.

In order to eliminate duplication of tracing work at various centres, adequate arrangements for additional printing-room equipment should be made by the Central Standards Office for the preparation and distribution to the Railways of sets of mechanical tracings and *ferros* of revised drawings.

Necessary additional office accommodation for the Central Standard Office should be arranged on a priority basis.

Provision of roving Instructors of the rank of Inspectors or Assistant Inspectors would be necessary on all Zonal Railways for training the Class IV and artisan staff distributed all over the line.

Engineering works, which are likely to commence after 1960-61, should be planned entirely on the metric system. Designs of works in hand at present should show the leading dimensions also in the metric system.

Establishment of Planning Cells in the major Mechanical Workshops and Production Units would be necessary for assisting the local management.

Chittaranjan Locomotive Works should consider commencement of production of each metric assembly as and when its modified drawings are received from the Central Standards Office.

Production of integral design coaches to the metric standards at the Integral Coach Factory, Perambur, should commence with the 10th and 11th batches, sometime in 1961-62.

All Production Units such as the Furnishing Unit at Perambur, Metric Gauge Integral Coach Factory, Duplication Factory, etc., to be set up in future, should be planned on the metric basis and manufacture from the commencement of production should be based on the metric system only.

Electrification projects likely to be taken in hand after 1960 should be planned on the metric basis.

Two Junior Scale Officers would be necessary for a period of 3 to 5 years, primarily for the revision of nomenclature lists in the Stores Branch of each Zonal Railway.

Existing organizations for the preparation of nomenclature lists should be suitably strengthened immediately so as to expedite the revision of these lists.

The revision of bases for rates and fares and other charges in the Commercial Branches of the Railways may be carried out simultaneously for both decimal coinage and metric weights and measures and brought into effect on and from April 1, 1960.

AIR TRANSPORT COUNCIL, INDIAN AIRLINES CORPORATION'S FARES AND FREIGHT RATES, 1955—REPORT

New Delhi, Ministry of Communications, 1957. 231p.+xivp.

Chairman : Shri S. Lall.

Members : Shri J. R. D. Tata; Shri Chandulal P. Parikh; Shri B. Malik; Shri K. Srinivasan; Shri A. K. Roy; Shri K. B. Mathur; Shri Shankar Prasad; Shri L. C. Jain; Shri J. K. Chaudhuri.

Secretary : Shri G. P. Shahani.

APPOINTMENT

During the debate on the annual report of the Indian Airlines Corporation in the Rajya Sabha on September 9, 1955, Shri Jagjivan Ram, then Minister for Communications, announced the Government's intention to have the Corporation's fare and freight rate structure examined by the Council. On September 19, 1955, the Council received a request "to study the general problem of fares and freight rates to be charged on the air services operated by the Indian Airlines Corporation and to draw up for the consideration of the Government a set of principles on the basis of which such fares and freight rates should be determined".

TERMS OF REFERENCE

(i) To study the general problem of fares and freight rates to be charged on the air services operated by the Indian Airlines Corporation; and

(ii) To draw up for the consideration of the Government a set of principles on the basis of which such fares and freight rates should be determined.

CONTENTS

Introduction; Definitions; Part I—Basic Economic Aspects; A Brief Review of Air Transport Results; Possibilities of Promoting, Developing and Expanding Air Traffic; The Corporation's Problems, Working Results and Future Outlook; A Brief History of Regulation of Air Fares and Freight Rates; International Fares and Freight Rates and Domestic Fares and Freight Rates of Foreign Countries; Part II—The Objectives; Reasonable Passenger Fares; Reasonable Freight Rates; Corporation's Deficit Operation; Part III—Summary of Conclusions and Recommendations; Acknowledgments; Minute of Dissent; Part IV—Appendices I to XVII.

RECOMMENDATIONS

Safety Record

Due publicity should be given to the ascertained causes of each serious accident whether investigated by a

court or not. Comparative statistics relating to accidents according to a well-accepted pattern should be published annually in fuller detail.

Travel By Air By Government Officers On Duty

The level of entitlement, which has since been reduced to a monthly salary of Rs. 1,600, should be further reduced to Rs. 1,100.

Passenger Insurance

We suggest that the Government consider the possibility of introducing a suitable, cheap Accident Insurance Scheme for air passengers.

Two-Class Air Travel

The Corporation should explore the possibility of introducing a two-class service either in the same aircraft or by different aircraft.

Tourism

We suggest that, in consultation with the Corporation, the Ministries concerned consider what action should be taken.

The Objectives

In an important public utility operated by the State, "business principles" should definitely be subject to overriding considerations of a national or public character.

The objectives of rate-making should be:

(i) To stimulate the maximum economic volume of traffic;

(ii) To generate surplus revenues on high-density traffic routes which would offset to the largest extent possible the gap between costs and revenues on weak traffic routes; and

(iii) To sustain and promote air traffic by creating a preference for it on account of its inherent advantages.

Reasonable Passenger Fares

On no scientific basis is it possible to establish any definite relationship between air fares and air-conditioned-class rail fares. The latter cannot be regarded as a reliable criterion for judging the reasonableness of the former.

If there is any significant diversion from air to rail travel adversely affecting the load factor of air services, the lowering of air fares within the permissible limit

hereinafter proposed or introduction of a cheaper, austerity class service would provide the appropriate solution.

The fare structure should be constructed on the basis of single tapering design.

The scale prescribed by such a design cannot be rigidly applied. The Corporation ought to have reasonable scope for experimenting with lower fares in order to promote, sustain or develop traffic. The scope for variation in the exercise of this discretion should be a range of 15 per cent below the prescribed scale. This may be called the range of reasonableness. Any fare proposed by the Corporation within this range may be approved by the Government as a matter of course. Fares may be fixed above or below the range, if the Government is satisfied that sufficient justification exists.

The Corporation, when negotiating foreign fares and rates under bilateral agreements, should, generally bear in mind the objectives and principles of rate-making stated by us.

The fares of foreign sectors of the Bombay-Madras-Tiruchirapalli-Colombo service should be raised at least to the level of domestic fares recommended for the corresponding sectors.

The Council recommends the following fare design:

(*For all existing types of aircraft*)

(i)	1 — 30 miles	...	0.6.6 per each pax. mile
(ii)	31 — 100 miles	...	0.5.0 ,
(iii)	101 — 200 miles	...	0.4.9 ,
(iv)	201 — 500 miles	...	0.4.6 ,
(v)	501 — 900 miles	...	0.4.3 ,
(vi)	901 and above	...	0.4.0 ,

Raising of the 10 per cent discount of the one-way fare for the round-trip journeys would not be in the best interests of the public as well as the Corporation.

It should be left to the discretion of the Corporation to introduce appropriate Concessional Fare Schemes for special purposes, e.g. to arrest traffic decline, to meet seasonal fluctuations, to give relief in distress, to provide for student concession, family travel, etc.

Whenever feasible, the Corporation should establish appropriate fare differentials between faster and slower services, and where there is appreciable difference between the standard of passenger comfort of the two services.

As there is a long halt at Nagpur on the Night Airmail Services during an inconvenient hour which breaks the passenger's sleep, the current practice of 10 per cent differential between the Day Services and Night Airmail Services should continue.

Also, where the cost of operation is significantly higher on account of the difficult nature of operations, an upward adjustment of the maximum fare rate is justified.

Fare should be computed on the basis of point-to-

point mileage except when there is a regular, available service between the two points by a shorter route, in which case the fare should be related to the shorter route distance.

Frequent or marked fluctuations should be avoided as far as possible. Due publicity and adequate notice should be given to any proposed changes in fares.

Reasonable Freight Rates

The Corporation should continue to watch the practices of Freight Agents from time to time and successfully regulate them in its best interests and those of the public through appropriate agreements.

On the one hand it is proposed to increase the Corporation's revenues by raising passenger fares, it would not be consistent, on the other, to recommend that the rebate of 25 per cent of basic cargo rate enjoyed by newspapers should be enhanced.

In view of the great social utility of vaccines and drugs, the freight rate for these commodities, as demanded by the B.C.G. Laboratory, Madras, a regular customer of the Corporation, should be slightly lower.

As the demand for transport of accompanying excess baggage is produced by passenger traffic, its rate should be equated to the passenger fare rate.

The Council, by majority, is of the view that, as the demand for promotional treatment of air cargo is being adequately met to the extent required, the current practice of equating the basic cargo rate to the passenger fare rate or the excess baggage rate should continue, though theoretically it costs less to transport air cargo than air passengers.

A start should be made towards standardisation of class rates, specific commodity rates, bulk rates and back-haul rates.

Taking excess baggage rate as 100, the rates to be fixed for high-grade commodities or cargo requiring special care in transit or in ground handling should, in accordance with current practice, be selected from the range 150 per cent, 200 per cent, 250 per cent, 300 per cent, 350 per cent and 400 per cent. If the basic cargo rate is equated to the excess baggage rate, the other rates should be selected from the following range, viz. 95 per cent, 90 per cent, 85 per cent, 80 per cent, 75 per cent, 70 per cent, 65 per cent, 60 per cent, 55 per cent, 50 per cent, 45 per cent, 40 per cent, 35 per cent, 30 per cent, 25 per cent, 20 per cent, 15 per cent, 10 per cent, according to what the traffic can bear in specified, small or bulk shipments on out-haul or on back-haul.

The last four rates will be for back-haul in the Calcutta-North Bengal, Assam, Tripura, Manipur region.

Admittedly, such rate-fixing is not an easy art and will require some period of trial and error to mature and give fair results.

The break-points or the minimum weights for entitle-

ment to lower bulk rates for out-haul or back-haul should, as far as possible, be standardised.

To meet possible competition from non-scheduled operators, the Corporation should be permitted to offer

special rebates for bulk shipments completed within specified periods, which would ensure customers' loyalty.

Greater emphasis should be laid by the Corporation on market survey.

ENGINEERING PERSONNEL COMMITTEE, 1955—REPORT

New Delhi, Planning Commission, 1956. 85p.

Chairman : Shri Y. N. Sukthankar.

Members : Shri Vishnu Sahay; Shri Kanwar Sain; Prof. M. S. Thacker; Shri S. B. Bapat; Shri S. Ranganathan; Shri K. N. Subramanian; Shri K. P. Mushran; Shri H. P. Mathrani; Shri G. K. Chandiramani; Dr. B. D. Kalekar; Shri N. Govindarajan; Shri H. Davenport.

Secretary : Shri B. N. Datar.

APPOINTMENT

A number of attempts at assessing the requirements of engineering personnel in isolated sectors have recently been made in the Ministries at the Centre and in the States. For instance, the Ministries of Irrigation and Power, Communications, Production, Railways and Iron and Steel have independently assessed their requirements for implementing the development programmes under the Second Plan. A few State Governments which anticipated acute shortages have also assessed their demand for engineering skills. To undertake an overall assessment of demand and supply in this respect, therefore, the Planning Commission set up the Engineering Personnel Committee under its Resolution No. PC (VI) L (E) II-15/55, dated September 26, 1955.

TERMS OF REFERENCE

(i) To make a general assessment of shortages of supervisory and higher grades of engineering personnel anticipated at the end of the First Five-Year Plan;

(ii) To estimate the probable requirements of engineering personnel of supervisory and higher grades for implementing the Second Five-Year Plan in the principal fields of national development such as building and road construction, railways, industrial development in the public and private sectors, mining and irrigation and power etc.;

(iii) To review the programme of the Central and State Governments under the Second Five-Year Plan for the expansion and development of facilities for technical education for engineering personnel of super-

visory and higher grades and to recommend such additional or modified programmes as may be considered necessary;

(iv) To review existing facilities for practical training in industrial establishments, including apprenticeships, and to recommend measures for their expansion in co-operation with industry; and

(v) To make such other recommendations as may be essential for ensuring the adequate supply of engineering personnel for the next 15 years with particular reference to the immediate requirements of the Second Five-Year Plan.

CONTENTS

Introduction; Historical Perspective and Future Trends; Assessment of Demand; Review of Supply; The Quality of Engineering Personnel; Supply in Relation to Demand; Skilled Workers; Apprenticeship Training; Flight of Personnel; Recruitment Policy; Implementation of Manpower Policy; Summary of Conclusions and Recommendations; Tables I to XXV.

RECOMMENDATIONS

There has been a considerable expansion in engineering education in the country in recent years. Even so, the demand for engineering personnel has outstripped supply.

A high-level of demand is likely to be sustained in view of the future emphasis on development of heavy industries.

Advance assessment of needs is necessary not only for supervisory and higher grades of engineering personnel, but also for skilled workers, who constitute a vital component of technical manpower resources.

There is a certain amount of immobility among technical personnel, especially at lower levels. In spite of incentives that may be thought of for promoting mobility, resistances are likely to persist. The regional aspect of demand and supply has, therefore, to be kept in mind.

In assessing the future demand for technical personnel, the following assumptions have been made:

(a) No major technological change as would seriously affect the requirements of engineering personnel will take place in the next five years;

(b) The present pattern of distribution of work between departments and contractors and as between small and big contractors will continue in the Second Plan also;

(c) An increasing proportion of graduate engineers will be employed in the private sector; and

(d) A substantial number of qualified engineers will be required to staff the additional capacity to be created for institutional training. The cadres will be strengthened to allow for a reserve for refresher training and deputation within and outside the country.

Central Ministries and State Governments had indicated comparatively heavy demands in the initial years of the Second Plan. Since these demands cannot be met all at once, they have been re-distributed between different sectors of development and between the five years of the Second Plan to correspond to a more realistic pattern of demand. This should not be considered as actual allocation of personnel to different regions or Ministries.

It is necessary to create a suitable deployment machinery to co-ordinate the release of personnel from one project and their absorption in another.

Foreign training for our engineers should be made more purposeful by advance mapping of fields in which such training is urgently required and earmarking trainees for suitable positions in the country on successful completion of training. A larger proportion of foreign scholarships should be made available to teachers in engineering institutions.

Post-graduate training facilities in engineering subjects should be provided on a wider scale within the country.

Engineers who have qualified in specialisations for which demand is likely to develop should be afforded facilities for pursuing advanced work in their chosen fields in (a) Design and Development wings attached to State enterprises and (b) Engineering and Technological institutions.

Since demand for specialists has not developed to any considerable extent, it will be more advantageous to continue the present arrangements under which training is more broad-based.

While standards in respect of top students in the engineering institutions have been maintained, there is reason to believe that a certain lowering of average standards has taken place.

Reasons for the deterioration in quality are:

- (a) Dearth of teachers of the right calibre,
- (b) Inadequate facilities for practical training,
- (c) Ineffective methods of examination and enforcement of standards, and

(d) Possibly also, insufficiency of equipment in some institutions.

Standards in engineering institutions should be improved by:

- (a) Bringing service conditions for teaching staff on a par with those obtaining in executive positions under the Government,

- (b) Sparring competent and experienced men from Government cadres for teaching in colleges,

- (c) Arranging field experience in industrial enterprises and engineering projects for teachers to help them keep in touch with the progress taking place in current engineering practices,

- (d) Promoting advanced work and research in universities,

- (e) Making promotions within the teaching line largely on the basis of research work carried out by staff,

- (f) Allowing serving engineers who display a special aptitude and potentiality for research to enter such work on adequate remuneration, and

- (g) Encouraging consulting work by University staff.

Standards of examination should be improved by effecting a partial change in favour of a system which will give evidence of the professional attainments of a student rather than his power to memorise.

As an incentive for better performance, employment should be guaranteed to students who top the lists in the examinations.

There is not sufficient justification for the belief that engineering personnel are surplus to the country's requirements.

Lack of experience is the main cause for unemployment among engineers. An engineer may also remain unemployed as a result of temporary imbalance between the supply and demand in certain regions.

Employing authorities should provide opportunities for experience to persons who have potentialities of being "built up".

The practice of advance recruitment of technical personnel and their training prior to posting should be adopted on a wider scale.

It is anticipated that in 1960-61, engineering personnel will be in short supply to the extent of about 1800 graduates and 8,000 diploma holders in different branches.

To meet the shortages, capacity in the existing established institutions should be expanded fully. It may be possible to secure in this manner an average increase of 20 per cent in the outturn of graduates and 25 per cent in the case of diploma holders.

In addition, 18 colleges and 62 diploma institutions will have to be opened. The total cost of setting up these training facilities (establishment of new institutions and expansion of capacity in existing institutions) will be in the neighbourhood of Rs. 16 crores.

It will take three to four years for these additional

facilities to yield results. In the interim period, shortages will have to be met by :

- (a) promotion from lower ranks,
- (b) more balanced utilisation of available talent,
- (c) retention of persons for suitable periods beyond the age of superannuation,
- (d) temporary overloading, to some extent, where this is not already being practised, and
- (e) the organisation of functional training at the supervisory level.

Functional training for supervisory personnel will have to be continued as a permanent measure, even beyond the interim period, since the additional facilities planned will need only 60 per cent of the prospective demand.

In addition to physical shortages, rigidity in recruitment and financial procedures create difficulties. These should be suitably resolved.

Institutional training for skilled workers, present and future, should be geared to the requirements of employing authorities.

Despite the insufficiency of information on skilled workers, it is possible to state that given the right atmosphere, engineering activities will not suffer for want of craftsmen.

Industrial establishments should train personnel in advance to meet not only their individual needs, but also the expanding requirements of the country.

If anticipated steel production is to find its uses, special efforts will be needed to place apprentices in the existing engineering establishments.

The Government's orders for machinery should be properly phased both in the interest of stepping up internal production and for widening the scope of apprenticeship in engineering trades.

Training opportunities afforded by foreign consultants and suppliers of machinery should be fully utilised.

Voluntary efforts, supported by the Government, should be sufficient to meet the needs of apprenticeship training.

If sufficient progress is not in evidence, legislation or levy of a cess may have to be considered.

There is evidence to show that in the engineering field there is considerable "flight" of personnel from job to job resulting in dislocation of work, unsatisfactory performance and increased expenditure on staff.

"Flight" of personnel is an organisational problem and is tied up with differences in salary scales, security of tenure and regional preferences.

States should agree to a common line of action for the evolution of uniform conditions of service for personnel engaged on development schemes.

The long-term interests of temporary engineers

engaged on development projects should be protected.

A suitable authority should be set up by agreement between the States and the Centre for (a) regulation of salary scales and security of tenure and (b) allocation, inter-State movement and welfare of personnel engaged on development projects outside the regular cadres.

Flexibility and speed have to be secured in recruitment through the Public Service Commissions in the context of the personnel needs of the development programmes.

Recruitment should be speeded up through (a) suitably strengthening the Public Service Commissions, (b) bifurcating their work relating to senior and junior posts, and (c) devising simpler and quicker methods of consultation.

Recruitment to services at the college campus should be tried because of (a) the advantage of speeding up recruitment and (b) the beneficial effect which a Service Commission going round the universities will have on students.

There should be one or two bulk selections every year for technical men of a particular category.

Priority should be given to the creation and maintenance of a Register of Technical Manpower.

Indian nationals receiving technical training abroad should be kept informed of employment opportunities advertised in India.

Future recruitment policy should be guided by the need to keep in balance the age composition of serving engineers.

The successful implementation of a manpower policy implies (a) an effective and continuous collection of the necessary information, (b) framing of policy on the basis of information so collected, and (c) execution of such policy. Each of these functions requires a suitable organisation.

With improved co-ordination among existing agencies, collection and interpretation of the necessary data on a continuing basis would not be difficult.

A Technical Manpower Committee of the Cabinet should be set up, with a corresponding Committee of Secretaries, to evolve policies regarding technical personnel. A Technical Manpower Division should be created in the Planning Commission to serve the Cabinet Committee. Similar Committees will have to be set up at the State level.

The Central Government should explore the possibilities of instituting a suitable All-India Service of Engineers by common consent of the participating States.

Technical and scientific personnel should be introduced at suitable levels in the general administrative machinery, especially to hold posts where their experience is of value.

STUDY GROUP ON EDUCATED UNEMPLOYED, 1955—REPORT

New Delhi, Planning Commission, 1956. Mimographed. 55p.

Chairman : Shri V. K. R. Menon.

Members : Shri G. K. Chandiramani; Shri Jang Bir Singh; Shri G. P. Kane; Shri K. N. Subramanian; Shri B. N. Datar; Shri P. C. Suri; Shri S. A. Qadir.

Secretary : Shri A. N. K. Nair.

APPOINTMENT

The Study Group on Educated Unemployed was set up in the last week of September, 1955, by the Planning Commission for the purpose of assessing the extent of the problem of unemployment among educated persons in the country and for working out schemes which would help tackle the problem.

TERMS OF REFERENCE

(i) To assess generally the extent of unemployment of the educated classes in the country and with special reference to conditions prevailing in areas where the problem is acute;

(ii) To indicate the scope for special programmes for increasing employment opportunities for educated persons in the schemes that are being formulated by the State Governments and Central Ministries and in the private sector;

(iii) To recommend special measures and programmes of training, re-orientation and employment which may facilitate absorption of educated unemployed persons into the economy of the country;

(iv) In particular, to work out detailed programmes to be implemented during 1956-57 and especially pilot programmes in selected areas; and

(v) To recommend a scheme of work and transit camps particularly in areas badly affected by unemployment with the following objectives in view:

(a) to assist the unemployed during the waiting period,

(b) to assist the unemployed to secure suitable employment, and

(c) to enable the unemployed to lead a disciplined life rendering manual work or other services and acquiring secondary skills through vocational training.

CONTENTS

Introduction; Approach to the Problem; Extent of Unemployment; Special Programmes to Reduce Unemployment; Proposals of State Governments; Some Measures to Mitigate Frustration; Long-Term Remedies; Conclusions.

RECOMMENDATIONS

The sum total of our recommendations in regard to items involving fresh capital outlay can be summarised briefly thus:

	Gross cost over 5-year period	Recoveries	Net cost
(Rupees in crores)			
(i) Work and Orientation Camps	7.1	nil	7.1
(ii) Small-Scale Industries	84.0	58.3	25.7
(iii) Co-operative Goods Transport	20.0	18.0	2.0
(iv) Other Schemes of State Governments	19.0	not known	not known

Recoveries in the case of schemes under (iv) can be known only after it is decided as to which of the schemes from among the many recommended by State Governments are to be finally selected. If, for the purpose of calculation, we treat half the sum as recoverable, the result will be that, on a gross provision of Rs. 130 crores, the net cost will be about Rs. 44 crores. The additional employment generated is estimated at 235,000 for the educated classes, leaving aside consequential employment created for others. If the co-operative sector is expanded in accordance with our recommendations—which we have omitted here as no financial provision is being separately recommended for it—approximately another 20,000 could be absorbed.

According to the assumptions we have made in Chapter 3, the position in respect of educated unemployed is likely to be about the same at the end of the Second Five-Year Plan period as it is at present if no special measures are undertaken on their behalf. While this is based on the best available data, certain caution is nevertheless desirable. Further, the goal of total elimination of unemployment can be attained only if substantial progressive reduction is achieved during the Second Five-Year Plan period. Broadly, our recommendations will reduce the quantum of unemployment among the educated group to about half the present number at the end of the period. We feel this is not too ambitious a target to work on, remembering that in view of the many administrative and other questions involved, the chances are rather of the target not being reached than of it being exceeded.

As already mentioned, no considered recommendations can be made regarding regional distribution until an indication is available whether the schemes recommended are approved as also whether overall finances to the extent we have recommended will be available. Further, we have still to get detailed recommendations from those States in some of which the problem is generally known to be acute or chronic. Some indication has, however, been given of the degree to which the problem exists in different regions. With this information coupled with further details which are expected from the State Governments concerned, it will be relatively easy to make specific recommendations as to how these amounts could be allocated to the different States. It is, of course, recognised that regional distribution cannot, in the case of every scheme, be based merely on the quantum of unemployment prevalent in a particular State. For instance, in regard to co-operative services for goods transport, distribution will have to be related to actual needs for such services. Nevertheless, it should be possible to make allocations between different States in such a manner that the overall allocations and employment potential can be reasonably related to the size of the problem in the particular States.

In regard to the gross expenditure on the schemes recommended, the major share is for the *one* item, "Small-Scale Industries", and we have made this recommendation after careful consideration and with an awareness of possible criticism. Our justification is first that the bulk of the expenditure is returnable investment. Even of the net cost of Rs. 25.7 crores, Rs. 4 crores represent non-recurring expenditure on buildings and equipment, the use of which will continue well beyond the five years. If account is taken of these factors, the ultimate net expenditure is by no means out of proportion to the importance the Government has been attaching to the development of small-scale industries. There is general admission, though for good reasons, that development in this sector has been poor during the First Five-Year Plan period. That alone is a justification for a larger outlay during the Second Five-Year

Plan. Though the Group is primarily concerned with the limited problem of educated unemployed, it is felt that between two types of schemes suited to this class, the one which is more important from the point of view of general economic development should have preference. Finally, the Group is convinced that this is one of the most potential fields which can absorb the educated youth as a permanent measure—not as a mere temporary palliative. Indeed one criticism, often expressed, against any change in the current pattern of education, is that this could be done only after ensuring that adequate facilities for vocational training and subsequent avenues for employment are both readily available. In a way, schemes of the type we have recommended afford one answer to such criticism.

Though the Group is confident that the targets can be effectively worked to—provided early decisions are reached and *adequate* administrative machinery is set up—we suggest that in the unlikely event of practical difficulties arising, the provision under one head could be reduced by a corresponding increase under another. To make such changes quickly a certain number of additional schemes should be held in reserve under each head. In the particular case of small-scale industries, we are clear in our mind that an adequate financial provision should be immediately sanctioned for getting complete schemes prepared.

We have referred to the steady increase in the number of educated men whose career at school or college has not given them a bias towards any particular vocation or specially fitted them for any type of employment. This trend is more pronounced in some regions than in others; and we urge once again the urgent need for the remedial measures recommended. One particular matter to stress here is the need for effective co-ordination between the educational authorities and those responsible for the employment services and vocational training, at all levels. This responsibility should be specifically located, as a continuous function, both at the Centre and in the States in their respective planning organisations.

ADVISORY COMMITTEE FOR LIBRARIES, 1955—REPORT Delhi, Manager of Publications, 1959. 141p.

Chairman : Shri K. P. Sinha.
Members : Shri N. Bhadriah; Shri J. C. Mathur; Shri B. S. Kesavan; Shri S. S. Saith; Shri T. D. Waknis; Shri D. R. Kalia; Mrs. Achamma John Mathai.
Secretary : Shri Sohan Singh.

APPOINTMENT

In September-October 1955, a Seminar on the "Role of Libraries in Social Education" was organised by the Indian Adult Education Association at Chirag Delhi. One of the recommendations of the Seminar was to set up a Library Commission to investigate the state of

libraries in India. The Ministry of Education accepted the recommendation and set up an Advisory Committee for Libraries instead of a Commission.

TERMS OF REFERENCE

(i) To enquire into the present reading needs of the people, how they are met and what part the existing library set-up plays in meeting the needs.

(ii) To enquire into the reading tastes of various sections of the people, what agencies are there to provide suitable literature and how the reading tastes and hence the literature can be improved.

(iii) To recommend the future library structure in India.

(iv) To recommend the forms of co-operation between the library and social education set-up.

(v) To go into the question of the training of librarians and the conditions of their service.

(vi) To make recommendations on the administrative and financial measures necessary to support the future library set-up in India.

CONTENTS

Historical; The Present Position of Library Service in India; Place of Public Libraries; The Structure of Libraries; The Auxiliary Services and Library Co-operation; The Library Personnel; Training Librarianship; Libraries and Social Education; Library Finance and Administration; Appendices I to V.

RECOMMENDATIONS

The Structure Of Libraries

Library service should be free to every citizen of India.

The library pattern in the country should consist of National Library, State Central Libraries, District Libraries, Block Libraries and Panchayat Libraries.

It should be desirable to have an independent Directorate of Social Education and Libraries in every State. Wherever, on account of any special local circumstances, this is not possible, the State Government should have at least one whole-time Senior Class I Officer of the rank of Deputy Director of Education.

The important functions of the State Library Department should, among others, be as follows:

(a) Prepare annual and five-year plans for libraries in the State;

(b) Collect descriptive and statistical reports on the working of all libraries in the State;

(c) Fix minimum standards of Library Service by various libraries under the State Library Department;

(d) Conduct constant evaluation of Library Service in the State;

(e) Ensure training of various types of library workers in adequate numbers and quality;

(f) Assist auxiliary bodies in maintaining their efficient and useful working;

(g) Sponsor library legislation, where necessary;

(h) Maintain an efficient Inspection and Advisory Service for District and Block Libraries in the State;

(i) Supervise and administer the system of grants-in-aid to Subscription Libraries.

The State Central Librarian should be the Chief Technical Adviser of the Library Department.

Every State should have a State Library consisting of two wings—the State Central Library and the State Lending Library. The important functions of the State Central Library should, among others, be as follows:

(a) Build up an exhaustive collection of all publications, official and non-official, in the State;

(b) Undertake bibliographical work, including special bibliographies, for the use of scholars and research workers;

(c) Maintain a union catalogue of the important libraries in the State;

(d) Maintain a strong reference collection and service;

(e) Act as a clearing house of information on the Five-Year Plans of the country, etc.;

(f) Organise book exhibitions and professional conferences;

(g) Be the centre of inter-library loan within and without the State;

(h) Promote library work with children.

The State Lending Library should:

(a) Mainly serve as home-lending library for the city in which it is situated and as the library supplying the stocks of District Libraries;

(b) Provide for lending of films, film strips and recordings.

The State Lending Library should honour the tickets of all service points in the State.

Libraries in big cities as well as District Libraries should have children's wings attached to them.

The State Library should exercise the following functions in the field of Children's Library Service:

(a) Plan the book stocks of libraries having children's wings;

(b) Exchange of children's books between libraries;

(c) Award prizes for those who publish good reading material for children;

(d) Hold conferences of school teachers for discussing children's literature;

(e) Hold travelling children's books exhibitions;

(f) Compile annotated catalogues of children's books;

(g) Prepare posters and artistic book-notices;

(h) Sponsor projects for studying children's reading tastes.

The State Library should have a Council which should be composed as follows:

- (a) The Minister of Education, as Chairman;
- (b) The Officer-in-Charge of Libraries in the State as Secretary of the Council;
- (c) Secretary, Education Department;
- (d) Representatives of all District Libraries in the State;

- (e) A representative of the State Library Association;
- (f) Vice-Chancellors of all Universities in the State;
- (g) A representative of the Development Department;
- (h) Two members of the Legislature;
- (i) Two persons co-opted for their special knowledge of libraries.

The Executive Committee of the Council should consist of not more than seven members, comprising the Chairman, the Secretary, the Secretary of Education Department, and four persons nominated by the Chairman from among the members of the Council.

In a district, Library Service should be a system based on urban centres having responsibility for their surrounding rural areas.

A District Headquarters Library should have two wings, one running a Reference Service and Lending Service as the Central Library of the town in which it is located, and the other running the Circulation Service to the branches in the city and Block Libraries.

A District Library Committee should consist of 15-19 members. Two-thirds of these members should represent Municipal and Block Library Committees and one-third nominated by the Executive Committee of the State Library Council. Of the members who represent the Municipal and Block Libraries, two-thirds will represent Block Library Committees and one-third Municipal Committees.

The important functions of a District Library Committee, among others, should be as follows:

- (i) Supervise the work of Municipal and Block Libraries;
- (ii) Lay down policy and procedure regarding purchase of books for the District Library;
- (iii) Opening of new branches, etc., or purchase of furniture, equipment and mobile vans;
- (iv) Issue reports on the working of Municipal and Block Libraries in the district as well as the District Library;
- (v) Administer library funds, including grants-in-aid, to Subscription Libraries.

The District Library Committee should be represented on the District Development Board by its Chairman.

A City or Town Library Committee should be composed of 10 persons. Of these, two-thirds should be elected by the Municipal Committee of the city or town and one-third nominated by the Chairman of the District Library Committee. The City or Town Librarian should be the Secretary of the Committee.

The State Government should encourage annual

conferences of Chairmen and interested members of District Committees. Expenditure on such conferences should be met from the State Government Library Funds.

Block Libraries should be manned by whole-time staff.

Information Centres in the blocks should form the nuclei of Block Libraries.

A Block Library Committee should consist of 9-12 persons. Of these, one-third should be nominated by the Block Development Committee, one-third should be elected by the members of the Block Development Committee from amongst themselves, and the remaining one-third should be nominated by the Chairman of the District Library Committee.

Every Panchayat should have a library.

The management of Panchayat Libraries should rest in the Panchayat or Village Committees.

At the all-India level, there should be a National Central Library and three National Book Deposit Centres. The National Book Deposit Centres should be run by the Government of India under the National Central Library.

There should be an All-India Library Advisory Council composed as follows:

- (a) Union Minister of Education, as Chairman;
- (b) Secretary, Ministry of Education;
- (c) The Officer-in-Charge of Libraries in the Ministry of Education as Secretary of the Council;
- (d) Chairmen of all State Library Boards;
- (e) A representative each of the Ministry of Community Development and the Planning Commission;
- (f) Two Vice-Chancellors of Universities;
- (g) Two Members of Parliament;
- (h) Two persons co-opted for their expert knowledge of libraries.

The important functions of the Council should be as follows:

- (a) Review and assess the work done by the State Library Departments;
- (b) Collect and publish descriptive and statistical reports of working of libraries in the States;
- (c) Lay down minimum standards of Library Education in the country;
- (d) Lay down minimum standards of Library Service for various sectors;
- (e) Organise experimental or pilot projects for administering new and better modes of Library Service;
- (f) Promote research in library problems;
- (g) Organise library conferences, seminars and workshops on national scale;
- (h) Collaborate with national or international library associations.

There should be an Executive Committee of the All-India Library Advisory Council consisting of seven

persons nominated by the Minister of Education from among the members of the Council, including the Chairman, the Secretary to the Ministry of Education and the Secretary of the Council who will be ex-officio members of the Board.

The Executive Committee will have all the necessary executive powers, and will be supported by a Division of Libraries with a Divisional Head in the Ministry of Education.

The Auxiliary Services And Library Co-operation

State Governments should encourage the setting up of book bureaux in all State capitals in the first instance, to be extended later to district and other towns. All libraries run or assisted by the Government shall buy their books from the bureaux.

Library Associations are essential to the development of library movement and State Governments and the Government of India should encourage development of strong library associations.

The Government should give financial assistance to Library Associations for the following purposes:

- (a) Rent for premises of headquarters office;
- (b) Remuneration of one whole-time or part-time Secretary or office clerk;
- (c) Projects of general usefulness to library movement which the Government may like to sponsor.

The Library Associations should strive to prepare the tax-payers' mind for accepting library legislation and persuade State Governments to enact legislation and set up State Libraries.

Libraries should encourage the formation of *Mitra Mandals* wherever possible.

Every State or region should have a centre where books weeded out from the Public Libraries are sent.

Public Libraries in the country should co-operate with one another as well as with subscription libraries, school libraries, college libraries, departmental and research libraries, university libraries, etc.

In places, where it may not be possible to run independent Public Libraries, school libraries may serve the public after school hours.

In places where Public Libraries are not strong, an inter-lending arrangement with the college libraries should be made.

Pending establishment of efficient reference sections in Public Libraries, Government departmental and research libraries should assist them in compiling annotated book lists on their special subjects and in answering reference enquiries from the public, etc.

The University Library should co-operate with the public library system by:

- (a) Issuing book lists on subjects of interest to certain groups in the public;

(b) Admitting as regular members the more serious minded readers among the public; and

(c) Perform reference functions of the State Central Library, where these libraries are not yet established.

The Government of India should sponsor the preparation of four Union Catalogues as follows:

(a) A Union Catalogue of all publications in the various university libraries in the country. This can be undertaken by the University Grants Commission.

(b) A Union Catalogue of all publications in the departmental and research libraries under the Government of India. The Union Ministry of Education should take up this work.

(c) A Union Catalogue of all copyright holdings in the State Central Libraries. The National Library will probably be best fitted to take up this work.

(d) A Union Catalogue of all scientific and learned periodicals in the university and research libraries in the country. This should be entrusted to the Scientific Research wing of the Ministry of Scientific Research and Cultural Affairs.

The Library Personnel

State Governments should accept the responsibility of Public Library Service in their areas. The librarians of these libraries should be State Government employees.

The various positions in the library structure in a State should be equated with those of teachers and educational administrators in the Education Departments.

State Governments should put out vocational pamphlets giving in detail the opportunities available in the public Library Service in the State.

Library Departments in the State should make clear-cut separation between professional and semi-professional work and entrust professional work to trained staff only.

After recruitment, the semi-professional staff should be given elementary library training during their probation period.

For a professional worker the minimum qualification should be Graduation with diploma in librarianship.

As far as possible, librarians should not be transferred too frequently.

Every State Library should have qualified specialists in Children's work and Adult work besides specialists in technical processes.

State Governments should freely grant study leave to librarians going in for ordinary or higher training in the profession.

It should be the responsibility of the State Librarian to see that librarians in the Public Library system keep up with the professional literature after leaving their library schools. The District Librarians and large City Librarians should take up similar responsibility for the staff under them.

State Education Departments and the Ministry of Education should have a programme of library seminars or workshops every year as follows:

(a) The Central Ministry of Education should organise every year at least one all-India seminar or a workshop of librarians and liberally subsidise at least two regional seminars.

(b) Every State Government should give at least one opportunity in a year to State and District Librarians to come together for one to four days' camp.

(c) District Librarians should similarly organise at least one annual meeting of Block Librarians and three or four conferences or camps where they, along with their Block Librarians, can meet Village Librarians for a day or two.

(d) Every Block Librarian should convene a meeting of Village Librarians three or four times a year.

(e) Apart from general seminars, there should also be special subject seminars and courses for the professional growth of librarians.

Suitable budget provision should be made for such seminars by the Government concerned.

In technical matters a librarian should be required to take orders only from a professionally trained librarian.

Library Departments should prepare manuals defining clearly the duties of all library workers in the State from the State Librarian down to the Village Librarian.

The Director of Libraries should have the following powers:

(a) Plan, organise and administer the Library Service in the State;

(b) Administer a system of State financial grant to Subscription Libraries so long as they exist and determine conditions of their absorption in the State Library System;

(c) A large measure of financial powers to enable him to run the Library Service smoothly. He should be closely associated with the preparation or revision of the State Library budget. His duties and powers vis-a-vis the State Library Committee should be clearly defined.

The State Librarians should have, among others, the following powers:

(a) Incur expenditure from the sanctioned budget for the State Central Library and to re-appropriate from one head in his budget to another with the advice of the Library Committee

(b) Grant all types of leave to his staff, except study leave and leave for more than two months which will be sanctioned by the Director of Libraries;

(c) Make officiating arrangements in case of a leave of more than a month;

(d) Depute staff members to library seminars and workshops inside and outside the State and sanction their travelling and other expenses;

(e) Appoint certain class of staff which an officer of

equivalent status in the Education Department is competent to appoint;

(f) Plan and publish technical works, including tools needed for proper performance of various technical processes;

(g) Organise elementary training programmes.

The District Librarian will have the powers necessary for supervising and co-ordinating the activities of Branch Libraries in the State.

The State Governments should frame rules for defining the powers of the District Librarian regarding grant of leave, appointments, purchases, etc.

In the cities and towns, library appointments should be made by Municipalities or Corporations in accordance with the rules framed by State Governments.

Chief Librarians at all levels should be associated with the selection of staff at their level.

State, District and Block Librarians should have seats on the Development Councils of their States, districts and blocks, respectively.

State Governments may institute certificates of merit to be awarded to persons and groups whose achievements in the field of Library Service may have been outstanding in a particular year.

No State Government should require a librarian to furnish security or to pay for the loss of books, unless gross negligence or dishonesty is proved against him.

Training For Librarianship

A National Scheme of studies for training in librarianship should comprehend (i) the training of semi-professional staff needed by all types of libraries, which requires training only in methods and routines, (ii) the training of the professional staff needed by most of the public libraries, which involves a sound training in general librarianship, and, finally, (iii) advanced or specialised training in Library Science for the leaders in the profession, as also for those who would occupy responsible positions in different types of libraries.

The training of semi-professional staff should be conducted at two levels:

(a) Training for Village Library work;

(b) Training library clerks for performing routine duties.

Block Librarians should give prospective Village Librarians in their jurisdiction a short course of two to four weeks' duration, which should prepare them for Village Library work, instruct them in the aims and scope of Library Service and the relation of Village Library Centre to other Social Agencies working in the field.

No university should run semi-professional courses. They should be run by Library Associations or, where no such association is willing or able to take up the responsibility, the State Government through the State Library.

The Government should lay down the standards with regard to the syllabus and duration of the Elementary Course, the selection of teachers and the conduct of examinations.

The duration of the elementary course should be three to four months, at the end of which the trainees should be required to take an examination comprising three to four papers of one or two hours' duration.

Courses for training professional librarians should be organised by the Universities, State Governments or the National Central Library.

The basic professional training should consist of a full year's course leading to a Diploma. The admission to this basic course should be confined only to First and Second Class Graduates.

The Government of India should set up an expert committee consisting of professional librarians for suggesting complete reorganisation of the syllabus of Library Diploma Course.

The expert committee should also go into the following subjects:

- (a) Teaching methods, and
- (b) Conduct of examination.

The University Grants Commission should strengthen the existing Diploma Courses in the first instance in order to enable the universities running classes in Library Science to create separate departments of library education and give adequate financial assistance to the Universities for this purpose.

In a University library, teachers should be appointed by the same agency which selects persons for other academic courses. The Library Teachers' status should also be determined according to the standards governing the status of other University teachers.

Teachers for Library classes should be selected on the strength of their research and publications.

Universities should offer to Library teachers salaries equivalent to those received by teachers of other departments.

All universities teaching Library Science should appoint Boards of Studies and Boards of Examiners in Library Science.

Some of the universities should also provide advanced courses in librarianship, leading to M.A. degree in librarianship.

The Central Government and the University Grants Commission should give financial assistance to the universities for this purpose.

The entrance qualifications for the advanced course should be at least a Second Class Graduate and Diploma in Librarianship. The admission may also be open to fresh Diploma holders who have first class or distinction in their first professional examination and for special librarians on the basis of their contributions to the profession.

Universities should also encourage research in librarianship. Special funds should be provided for this purpose.

Libraries And Social Education

In some States demonstration projects should be tried at one or two promising centres where librarians, who are also trained in the teaching of reading, may take some regular classes for improving reading skills and methods of study of the people willing to take such lessons.

In order to be helpful to one another, Librarians and Social Education workers at the Block and District levels should have knowledge of one another's field of work.

Both the Social Education workers and Librarians should try to discover the reading tastes and reading needs of the people and pass on this knowledge to the book production agencies in their State.

Library and Social Education staff should meet regularly to evolve methods of fruitful co-operation.

Library Finance And Administration

The Government of India and State Governments should have a 25-year Library Plan to raise the library structure from its present embryonic dimensions to a size which will do justice to the cultural and educational needs of the people.

The Government should levy a cess of 6 paise in a rupee of property tax in all places with permission of the local bodies to raise the cess.

The Government of India should contribute to the Library Funds of a State an amount equal to the cess collected in the State.

To begin with, State Governments should give grants equal to the cess collected and gradually in the course of the next 25 years raise their contribution to three times the cess collected.

Suitable existing Subscription Libraries should continue to receive aid from State Governments subject inter alia to the condition that at least 25 per cent of the membership of an aided library should be free and mainly meant for persons of low economic status. The existing Subscription Libraries should be encouraged to join the proposed free public Library Service in every State.

Subscription Libraries set up after the publication of this Report should not be given grants-in-aid.

There should be a periodical review, after every five years, of the Subscription Libraries in receipt of Government aid and after every such review the freeships of such libraries should be raised by at least 25 per cent. Thus at the beginning of the Sixth Five-Year Plan the entire public library system will have become free.

In each State, the library system should function as follows:

(a) The cess collected in an urban area by a Municipality or a Corporation will constitute the Library Fund of the Municipality or Corporation.

(b) The cess collected in the area within a block will constitute the Block Library Fund.

(c) To each Block or Municipal or Corporation Library Fund the State Government will add an amount equal to the cess collected either in cash or in the form of provision of staff or both.

(d) The Central Library at a District Headquarters will serve as the Central Library for the entire district for purposes of supplementing the book stocks of Block and Municipal Libraries and for strengthening the administration. To enable it to do so, the whole of the State Government's contribution to Municipal and Block Funds in the district will go into a District Library Fund. If necessary, the funds may be reinforced by a percentage of Library Funds of the Blocks and the Municipalities in the District. In addition, subject to a degree of autonomy of large cities with population of over one lakh, the District Library will exercise a certain degree of autonomy over other libraries, especially in the deployment and use of their book stocks, and the areas which they should serve.

State Governments should enact a comprehensive State Library Law which will provide for the following:

(a) Free Public Library Service with the following objectives:

(i) To house materials giving reliable information and wholesome recreation,

(ii) To organise them as to promote their use,
(iii) To stimulate non-readers to be readers and readers to be purposive students,

(b) A library rate of 6 paise in a rupee of property tax to be levied by local bodies and Panchayats.

(c) The State Government will aid the local bodies by a matching formula. The law may be brought into operation gradually within a period of 20 years.

(d) There will be Block Library Funds and the Municipal Library Funds, but the district would be regarded as a Unit of Library Service.

(e) The various units of Library Service will have their own Library Committees.

(f) The State will organise a Department of Libraries.

(g) The State Government will recognise Library Associations and provide for adequate assistance to them.

(h) Books will form the bulk of library stocks, which must also include newer media of mass communication like audio-visual materials, etc.

Similarly, the Government of India should enact a Library Law incorporating:

(a) Right of every citizen to have free access to libraries as his Fundamental Right;

(b) Collating the various deposit sections under the Copyright Act, the Delivery of Books Act, and the Press and Registration of Books Act and making them subserve the needs of a National Library Service; and

(c) Providing for financial assistance to State Governments.

ALCOHOL COMMITTEE, 1955—REPORT

Delhi, Manager of Publications, 1956. 137p.

Chairman : Dr. A. Nagaraja Rao.

Alternate

Chairman : Dr. G. P. Kane.

Members : Shri M. P. Alexander; Shri Jasjit Singh, Shri Shripat.

Secretary : Shri S. L. Venkateswaran.

APPOINTMENT

The present production of alcohol in the country is being largely utilised as power alcohol which in admixture with petrol is used as an automobile fuel. Quite apart from the fact that the scope for using alcohol in this fashion is for various reasons very limited, it is desirable that the many industrial uses of alcohol should be developed so that many products for which the country is dependent on imports today and the demand

for which is going up could be produced in India. With the expansion which is taking place and is expected to take place in the production of sugar, the potentiality for producing alcohol is on the increase. Taking all these circumstances into account, the Alcohol Committee was constituted under the Ministry of Commerce and Industry, vide their Resolution No. Ch. Ind. 33(11)/52, dated October 11, 1955.

TERMS OF REFERENCE

(i) To assess the scope for increasing the production of alcohol in the country having regard to the present materials and to suggest suitable locations for any new units for producing alcohol that may need to be set up.

(ii) To examine the manner in which the total

alcohol production in the country can be fully utilised either as power alcohol or more particularly for industrial purposes and to recommend the industries which can be expanded or established having regard to the increase in the availability of alcohol for industrial purposes in the country.

(iii) To study the system of controls exercised by different States over the production, distribution and transport of alcohol and to make suitable recommendations for their simplification, where necessary, in order to ensure that while the objectives of the controls are adequately safeguarded, the industrial concerns which need alcohol as a raw material have the minimum of difficulty in meeting their requirements.

(iv) To make any other recommendations that the Committee may deem appropriate having regard to the objectives of increasing the production and utilisation of alcohol for industrial purposes.

CONTENTS

Introduction and Scope of the Committee's Work; Brief History of the Growth of Alcohol Industry in India; Present Position of the Alcohol Industry; Prospects for Development of the Alcohol Industry and the setting up of Additional Capacity; The Price of Alcohol; Tax on Alcohol; Regulations governing Price Distribution, Possession, Transport and Use of Industrial Alcohol; Arrangements for Use of Power Alcohol; Miscellaneous Considerations; Summary of the Major Recommendations; Tables I to XII; Appendices 1 to 10.

RECOMMENDATIONS

1. Consumption of alcohol for industrial purposes amounts only to 3 to 4 million gallons per year at the present time. The scope for increased use of alcohol for such purposes has been analysed and major projects based on alcohol as a raw material that should be encouraged on a priority basis have been indicated. If all these projects materialise, their requirements of alcohol would amount to over 31 million gallons per year.

2. The present annual consumption of alcohol as power alcohol is of the order of 10 million gallons. Even when alcohol-based industries develop, it will be necessary to continue to use power alcohol in admixture with petrol so as to provide a flexible demand to cover any imbalance between anticipated production and gradual development of industrial demand for alcohol. For several years to come, it will be necessary to arrange for the utilisation of about 12 million gallons per year as power alcohol.

3. The principal raw material for the production of alcohol will have to continue to be molasses from sugar factories. The availability of molasses estimated on the basis of the programme envisaged for expansion of the Sugar Industry during the Second Five-Year Plan is of

the order of 1 million tons per year. After meeting the requirements of other users, it is expected that over 900,000 tons of molasses will become available for the manufacture of alcohol from 1959-60 onwards.

4. The total production of alcohol even from all the available molasses as shown in (3) above together with about 1 million gallons produced from Mahua flowers would be of the order of 46.8 million gallons per year (100% by volume). Installed distillery capacity recommended for achieving this production is of the order of 52 million gallons per year

5. The minimum capacity for a distillery of economic size, under the present circumstances in India is 1 million gallons per year. The Committee recognises, however, that under special circumstances, the economies of production in units of smaller capacities may not be too disadvantageous.

6. The power alcohol industry has been developed to its present stature on the basis of an ex-distillery price of 14 annas per gallon. It is essential that the basic price for alcohol should not be higher than this figure if its use as a raw material for industries is to be developed. The Committee considers this an essential prerequisite for stimulating industrial development based on alcohol and also in view of the absence of many other organic raw materials for development of these important industries within the country.

The Committee recognises that while the basic price for alcohol may be fixed so as to provide a fair return to the producer, the incidence of price to the consumer may be governed by a system of graded taxation depending upon the use to which the alcohol is to be put.

7. As molasses has been and will continue to be the principal raw material for production of alcohol, control over its price and distribution is essential if the price of 4 annas per maund, for molasses containing not less than 50 per cent total sugars, is recommended. For molasses of a lower sugar content, correspondingly lower prices on the lines prescribed in U.P. may be charged.

In spite of the many representations demanding an increase in the price of molasses, the Committee is unable to recommend any such increase because, while it will not contribute significantly to reducing the price of sugar to the consumer, such an increase would be detrimental to the development of alcohol and alcohol-based industries.

8. In order to ensure uniformity in the control over price and distribution of molasses, it seems preferable that such control should be exercised by the Union Government under powers conferred by the Industries (Development and Regulation) Act.

9. A ceiling price for alcohol has been calculated after taking into account the cost of production in a unit of economic size as well as the actual average

transport charges on molasses from sugar factories to the distilleries. It is recommended that a uniform ceiling price for alcohol ex-distillery should be:

Rs. 0.12.9 for alcohol of strength 99.5% by volume, Rs. 0.12.5 for alcohol of strength 96% by volume, plus an amount corresponding to an additional charge upto a maximum of Rs. 0.60 per gallon towards the actual average transport charges incurred on molasses.

The above price would be applicable to alcohol corresponding to the specifications of power alcohol and rectified spirit (industrial grade) respectively.

10. In the interest of developing alcohol-based industries, it is essential that alcohol of all grades, including power alcohol, should be charged the same freight rates on Railways. It is recommended that one uniform rate should be charged under Class 10 for Railway Risk and under Class 8 for Owner Risk for all grades of alcohol.

11. There is no unanimity of opinion between the Union and State Governments regarding their respective rights to tax alcohol. The Committee feels, however, that if efforts for promotion of a substantial increase in the consumption of alcohol for industrial purposes are to succeed, it is essential that a uniform taxation policy and procedure should be devised by agreement between the Union and State Governments, as has been done already for power alcohol. Such taxation can be enforced more satisfactorily by the Union Government.

The two members of the Committee belonging to the State Governments feel, however, strongly that since excise duties on alcohol represent a major flexible source of revenue to State Governments, even if it decided that the Union Government alone has the power to levy a duty on industrial alcohol, the collection of such duties should be left to the State agencies and the amounts realised retained by the concerned States.

12. It is recognised that for certain categories of uses a higher price of alcohol would not constitute a deterrent to its consumption, and, therefore, any margin between the ceiling price specified earlier and the higher price which such a user could afford to pay may provide a source of revenue to the Government. Variation in excise duties on alcohol used for different purposes has been recommended in the light of this observation.

13. It is recommended that the incidence of Permit or Licence Fees, Vend Fees and Gallonage Charge, etc., may be levied, if at all, at a token figure and that such charges should not be levied as a compensation to cover the costs incurred in the administration of Excise and Prohibition Laws.

14. It is recommended that Excise Laws governing distilleries engaged in the production of alcohol be revised in consonance with the needs of modern design and practice. The lines on which existing State Regu-

lations may be revised have been indicated in broad detail.

15. Control over distribution of industrial alcohol should be exercised under Section 18 (G) of the Industries (Development and Regulation) Act so as to ensure proper correlation between its production and distribution and to guarantee adequate supplies of alcohol at reasonable prices to industries whose development is deserving of encouragement.

16. It is recognised that prevention of misuse of alcohol for potable purposes is the responsibility of State Governments; it is necessary, however, that jurisdiction of State Governments in this respect should be integrated with the need for encouraging industrial developments based on alcohol. The following suggestions have been made to achieve the objective:

(i) Conditions of licences and permits granted by State Governments to producers or users of alcohol should not conflict with any of the objectives of the Industries (Development and Regulation) Act.

(ii) Wide scope should be permitted in the use of special denaturants for alcohol depending upon the specific needs of different industrial processes.

(iii) While denaturants must be tested and certified as conforming to approved specifications before use, it is not necessary to insist on further tests of the denatured spirit before issue from distilleries

(iv) A permit for each individual consignment drawn by the licensee need not be insisted upon, so long as supplies are made within an annual quota previously fixed and licensed for use by an industrial user and the consignment is moved each time only against passes from the Excise Inspector stationed at the distillery.

17. The general public may be allowed to buy and keep up to a maximum limit of half a gallon of completely denatured spirit without permit or licence for domestic and other miscellaneous uses.

18. The varying pattern which may have to be developed with respect to mixing depots for supplying petrol mixed with power alcohol in different parts of the country during the next few years has been indicated.

To ensure the offtake of power alcohol in different areas from year to year it is considered necessary to adopt a flexible system for the sale of power alcohol, under which the Oil Companies should take over directly from the distilleries the stipulated amount of alcohol allotted to them each year and take charge of arrangements for the purchase, handling, transport and sale of all power alcohol. An outline of the arrangements that should be made for this purpose has been indicated.

19. The need is felt to have a clear definition of the terms "alcohol" and "spirit" so as to devise methods for extending facilities and assistance exclusively to producers and users of power and industrial alcohol. It is

suggested, therefore, that the term "alcohol" be used for denoting only ethyl alcohol of 66° over proof and above, and the term "spirit" be limited exclusively for alcohol of lower grades.

20. Recently, the Ministry of Finance have issued a Notification exempting methyl alcohol from the purview of the definition of the term "spirit", for purposes of levy of Customs Duty. The Committee recommends that a similar Notification exempting higher alcohols such as isopropyl, amyl, butyl, etc., which are neither potable nor intoxicants be issued immediately and that the scope of control and taxation of all alcohol or spirit be confined scrupulously to ethyl alcohol only.

A similar exemption from control applicable to ethyl alcohol should be granted also to users of fusel oil containing less than 12 proof gallons of ethyl alcohol.

21. The cost of excise supervision should not be realised from distilleries, as it constitutes an appreciable addition to the cost of production of alcohol.

22. Sometimes difficulties arise because of dual control over alcohol producers exercised by the Union and State Government Departments. It is recommended that a system may be devised under which one single officer, either of the Union or the State Government concerned, will be in sole charge of a distillery or a factory.

23. The anticipated movements of molasses and alcohol for the Second Five-Year Plan period have been worked out for the guidance of the Railway Authorities. The Committee wishes to stress that provision of tank wagons in adequate numbers for both is essential to ensure success of the programme of development of alcohol based industries and, therefore, expenditure on tank wagons should be regarded as a developmental item and arrangements made to procure them in adequate numbers in anticipation of the need.

24. It may be possible to build up an export market for over a few million gallons of alcohol per year if the price of alcohol is pegged at the level recommended in this report. Suitable assistance should be given with regard to excise procedure and availability of tank wagons and storage facilities at ports to prospective exporters.

25. A Development Council for Fermentation Industries including alcohol and products obtained therefrom should be constituted as early as possible.

26. Since State Governments issue permits or licences to all consumers of alcohol, they should maintain detailed statistics relating to industrywise consumption of alcohol, because such data would be valuable for estimating the requirements of industries in future.

SETHUSAMUDRAM PROJECT COMMITTEE, 1955—REPORT

New Delhi, Ministry of Transport, 1957. 41p., Charts.

Chairman : Dr. A. Ramaswami Mudaliar.
Members : Shri S. K. Mukerji; Shri B. N. Chatterjee;
 Captain J. R. Davies.
Secretary : Shri R. A. Gopalaswami.

APPOINTMENT

The Sethusamudram Project Committee was constituted under the Government of India vide their Resolution No. 9-PII(23)/55, dated November 1, 1955, to examine and report on the feasibility and desirability of connecting the Gulf of Mannar and the Pall Bay by cutting a channel at the approaches to the Adam's Bridge for enabling deep-sea ships to navigate in safety from the West to the East Coast of India. It has been suggested that the construction of such a passage would increase the potentiality of the port of Tuticorin if it is to be developed into a deep-sea port.

TERMS OF REFERENCE

(a) What is the extent to which shipping in general

is likely to benefit by, and in practice to take advantage of the shortened sea route via the proposed Sethusamudram Passage?

(b) Would the advantages, likely to be secured, be commensurate with the expenditure involved?

(c) What are the traffic prospects of the Tuticorin Port during the next decade—

(i) if the Sethusamudram Passage is provided; and
(ii) if the Sethusamudram Passage is not provided?

(d) In the light of the traffic assessment, should the Tuticorin Development Project be proceeded with? If so, what should be the timing :

(i) immediately by itself and independently by the Sethusamudram Project;

(ii) simultaneously with the Sethusamudram Scheme; or

(iii) at a later stage and, if so, when?

CONTENTS

Introductory, Integrated Project—Proposed Design

and Estimate of Cost; Estimates of Traffic and Revenue; Direct Financial Return; Answers to Terms of Reference; Sethusamudram Project and Rail Traffic; Concluding Remarks; Annexures I & II.

RECOMMENDATIONS

Sethusamudram Legislation

If the project is executed, it will be necessary to make provision by special legislation for the permanent maintenance of the navigational works and facilities brought into being thereby. The canal, the various approach channels, the lock and the bridge will have to be maintained and conserved. The statutory authority will have to be established; its jurisdiction will have to be defined; (this may possibly entail reference to the Sethusamudram Medial Line) and it should be given legal authority to levy dues on ships using the route and to regulate their movements on the route and safeguard their navigational safety and conveniences.

Sethusamudram Authority

Since the creation of a Sethusamudram Authority would be essential at a later stage, it would be an advantage, in advance of legislation, to set it up under executive orders immediately upon sanction of the Project. This would enable the execution of the Project to be supervised closely and carried out efficiently and expeditiously. The necessary financial and administrative powers can be delegated so as to secure this result.

It will be necessary to give careful consideration to the composition of this Authority. We think it is essential that it should be composed of representatives

of the Government of India, the Government of Madras, the Indian Shipping Companies, the Southern Railway and the Tuticorin Port Trust.

Sethusamudram Shipyard

Before concluding this Report, we desire to invite the attention of the Government of India to the special features of the site which we have selected and recommended for the location of the Sethusamudram Canal. It is situated in the vicinity of a natural harbour with a shore-frontage of about seven miles. There is a railway and a National Highway lying immediately behind this frontage. Land is available in plenty and can be acquired at low cost. Electric power is available. The sea in this area (as in the South generally) has a very low range of tides.

We understand that the coexistence in one place of all these advantages renders the area in the vicinity of Sethusamudram Canal exceptionally well suited for the location of ship building and allied industries. At present, India has got only one shipyard at Visakhapatnam. As our work was nearing conclusion, the newspapers carried the report that the Government of India had taken the decision that a second shipyard should be established somewhere in the country and that they were on the look out for a suitable site.

We have, therefore, considered it appropriate that we should bring these facts to the notice of the Government of India. We suggest that the possibility of establishing the second shipyard required by the country in the vicinity of the Sethusamudram Canal may be investigated.

THE COMMITTEE ON AMALGAMATION OF COLLIERIES, 1955—REPORT

New Delhi, Ministry of Production, 1956. 148p.+ivp.+Map.

Chairman : Shri Balvantray Gopaljee Mehta.

Members : Shri N. P. Nathwani; Shri R. R. Morarka; Shri Ahmed Mohiuddin; Shri M.L. Shome; Shri S. S. Grewal; Shri R. Maulik; Shri J. N. Mukherjee; Shri B.L. Agarwalla; Shri Baidya Nath Banerjee; Shri Chapalendu Bhattacharjee; Shri Kanti Mehta.

Secretary : Shri S. Mayuranathan.

APPOINTMENT

The Committee on Amalgamation of Collieries was constituted under the Ministry of Production vide their

Memorandum No. C 2-23 (10)/52, dated November 10, 1955.

TERMS OF REFERENCE

(i) To examine the position of the Collieries in Raniganj and Jharia coalfields and to make proposals for their amalgamation into single economic units taking into account the areas of holdings, the current output and capacity of the collieries, geological and geographical and other relevant features, the need for efficient and economical production, conservation and preparation of coal by such processes as washing, etc.;

(ii) To consider the objective in relation to existing State legislation and to suggest whether Central Legislation will be necessary for carrying out amalgamation, and, if so, to recommend the content of such legislation.

CONTENTS

Introduction (Appointment and Terms of Reference; Amendment of the Terms of Reference; An Interpretation; The Committee's Procedure; Our Approach to the Problem; The Questionnaires of the Committee; Witnesses; Acknowledgments); The Bengal and Bihar Coalfields (Progress and Development of Mining in India; The Present Position; Leases, Intermediaries and Royalties; Production and Methods of Production; Labour; Transport and its Effect on Production; Summary); The Background to the Problem of Amalgamation and the Appointment of the Committee (The 1919 Report and the 1920 Committee; The Views of the Coal Mining Committee, 1937; The Indian Coalfields Committee; The Working Party of the Coal Industry 1951; Discussions with the Industry 1952 to 1955; Summary); Experience in Foreign Countries (General; Great Britain; Germany; France; Netherlands; Belgium; U.S.A.; Australia; Summary); The Laws Affecting the Coal Industry (The Mines Act and the Indian Coal Mines Regulations); The Coal Mines (Conservation and Safety) Act and the Coal Board; The Colliery Control Order 1945 and the Coal Controller; The Welfare, Rescue and Provident Fund Organisations; The Mines and Minerals (Development and Regulation) Act 1948; The Bihar Land Reforms Act 1950; The West Bengal Estates Acquisition Act 1953); The Small Collieries and their Problems (History; Performance; The Colliery Control Order and its Effect; Labour Amenities and other Factors; The Capacity of the Small Collieries; Technical Management; Their Place in the Industrial Structure; Summary and Conclusions); Irregular Boundaries (Present Position; Problems created by Irregular Boundaries etc.; Relation between Geological and Surface Features and Mine Boundaries; Causes of Unsuitability of Barriers; Previous Consideration of the Question; Main Difficulties in Adopting Remedial Measures; Remedial Measures Suggested and Conclusions; Recommendations); Coal Conservation (The Reserves of Coal; Safety and Conservation; Stowing; Coal Washing; Blending; Rotation of Workings; Waste in not working thin seams; Selective Mining; Recommendations); Modernisation and Mechanisation (Planning; Mechanisation; Improving O.M.S. in existing Mines; Mechanisation in Relation to Amalgamation; Recommendations); Proper size of a Colliery and the Collieries to be Amalgamated (Present Classification of Collieries; Classification According to Area, Labour Strength, etc.; The Relation of Output to Various Factors and the

Economics of Mining; Various Views Regarding size of a Colliery; Our Conclusions; Summary; Recommendations); The Objectives and Scope of Amalgamation of Collieries (Survey; The General Scope of Amalgamation; Seam-wise Fragmentation of Collieries; Non-Contiguous Collieries; Amalgamation of Working Seams; The Exploitation of Virgin Seams; Discontinued Collieries; Summary; Recommendations); Methods and Procedure of Amalgamation and Adjustment of Irregular Boundaries (Methods of Amalgamation and Adjustment of Boundaries; The Machinery to draw up Schemes; Voluntary Amalgamation before the Appointment of the Commission; The Procedure and the Time-Table; Recommendations); Central Legislation Required (The Position Regarding Mineral Rights; The Recommendation of the Indian Coal Fields Committee; The Bengal and Bihar Acts; Royalties and Intermediaries; Mines and Minerals (Development and Regulation) Act; Other Central Acts; Legislation Required; Summary; Recommendations); Valuation of Collieries, Finance and the Organisation to run the Amalgamation Units (Experience in the U.K. and France; Methods of Valuation; Suggestions Regarding Valuation; General Practice in India; Details of Assets; Procedure for Valuation; The Valuation of Reserves; Exceptional Cases; Compensation to the Participating Owners; Finance for the Amalgamated Units; The Organisation to Run the Amalgamated Units; Recommendations); Effect on Employment of Labour (Views regarding possible Retrenchment of Labour; Mechanisation after Amalgamation; Our Examination of the Problem; O.M.S. in Production Groups; Adjustment Required; Absorption of Workers who may be Rendered Surplus; Conclusions and Recommendations); Conclusions and Recommendations; Notes; Appendices.

RECOMMENDATIONS

The Bengal And Bihar Coalfields

A large number of small collieries is a noticeable feature of the Bengal and Bihar coalfields which produce the bulk of India's coal production. The number of collieries has fluctuated in the past; the number is progressively getting reduced since 1950. The mineral rights in the permanently settled areas belonged to the landlords who gave leases and by a process of sub-leasing of various lessees' interest a class of intermediaries who collect a royalty from the producer of coal has been created. Labour position has been stabilised since the award of the Conciliation Board in 1947. The Industrial Tribunal for Coal has now given a fresh award. But the conditions under which colliery labour lives and works require further improvement. The need for adequate transport for coal is of paramount importance.

The Background to the Problem of Amalgamation

The existence of small and irregular collieries and the fact that in such areas scientific and planned mining may not be possible and that there is wastage of coal have been observed since 1919. Recommendations have been made by various Committees since 1919 that small collieries should be amalgamated. This Committee has been appointed in 1955 to work out more definite proposals.

Experience in Foreign Countries

In most of the foreign countries, the collieries are large units. In the U.K. the problem of amalgamation of colliery undertakings was tackled in various ways and by making statutory provisions; though some amalgamation took place, the objective aimed at could not be achieved. In Germany unification of mines has taken place voluntarily for the formation of units with large production.

The Laws Affecting The Coal Industry

The existing enactments and statutory orders affecting the Coal Industry which have a bearing on the problem of small collieries and their amalgamation are:

(i) The Mines Act and the Indian Coal Mines Regulations, which deal with safety, labour, etc.

(ii) The Coal Mines (Conservation and Safety) Act which deals with Conservation of Coal and Safety in Coal Mines. It is administered by a Coal Board which grants assistance for measures of conservation and safety and also controls the opening of mines.

(iii) The Colliery Control Order, under which the price of coal is controlled. There is control over the distribution of coal to various classes of consumers by allotment of wagons.

(iv) The Coal Mines Welfare Commissioner is in charge of general welfare and amenities for labour, including Housing, Health, Water Supply, Education and Recreation.

The Coal Mines Rescue Committee trains rescue workers.

The Coal Mines Provident Fund Act is administered by the Coal Mines Provident Fund Commissioner and the Bonus Scheme Act by the Regional Labour Commissioner.

(v) The Mines & Minerals (Development and Regulation) Act controls the leases for minerals including coal. The rules regarding mining leases are administered by the State Governments under the overall control of the Central Government.

(vi) The Bihar Land Reforms Act and the West Bengal Estates Acquisition Act are intended to vest in the State Governments the rights of royalty holders and intermediaries.

The Small Collieries And Their Problems

The small collieries are large in number, but their overall output is small. They are small ventures with no equipment. They have no technical staff. They have no possibility of expansion. They cannot follow scientific and planned methods of exploitation of coal. They cannot tackle fires. They do not provide housing and other amenities to labour. Labour in these mines is not organised and collective bargaining is not generally possible. Labour is not paid wages according to the standards laid down, and Provident Fund and other facilities are denied. There is wastage in production.

The country is going to need more coal and in the next decade or so, the requirements of coal for industrial purposes may increase to more than 200 million tons. New standards to improve the living and working conditions of labour, are being laid down. If the industry is to play its part in the immediate future, it should be reorganised. Such reorganisation is hardly possible if so many small units of production, with all the disadvantages mentioned, are to be allowed to continue. They should, therefore, be amalgamated, brought under unified control, reorganised and modernised so that the existing resources will be exploited in the best possible manner and in the best interest of the nation.

Irregular Boundaries

The existence of irregular boundaries between collieries, of faults and other geological disturbances in seams in different coal mines and the surface features like jores, rivers, railway lines and roads over coal mines cause avoidable waste of coal and difficulties in extraction.

In order to minimise the locking of coal underground due to the existence of railway lines, roads, rivers, etc., the boundaries should be redrawn and readjusted, so that such features form the boundaries wherever necessary.

In cases of geological disturbances like faults, dykes, etc., in coal seams the boundaries should as far as possible be readjusted so that the boundaries overlie such disturbances.

Registration of such transactions as may be necessary for adjustment of boundaries should be exempted from Stamp Duty or nominal Stamp Duties should be charged.

The Government of India may suggest to the State Governments concerned to take measures to ensure that the difficulties in the way of adjustment of boundaries, arising from different lease terms, should be removed.

Coal Conservation

The proper re-estimation of the reserves of coal in India is necessary. We understand that a Committee is being appointed to draw up a procedure for estimation of reserves and to re-estimate the reserves of coal.

Measures should be taken to ensure the maximum extraction of coal and for the best use of coal; at the same time the maximum possible extent of safety in coal production should be ensured.

The Coal Board should make arrangements for the supply of sand and water in the case of collieries where stowing is urgent for safety and conservation of coal. Small collieries cannot carry out stowing even if sand were to be supplied. Stowing can be expanded by the amalgamation of collieries. Studies should also be carried out in regard to methods of pneumatic stowing and mechanical stowing and various methods of large-scale transport of stowing materials.

Amalgamation of collieries will enable the Central Washeries to draw coal of fairly uniform washability characteristics from large units.

We understand that arrangements for coal blending are receiving attention.

Waste of coal in thin seams, and selective mining may be avoided by extensive stowing and washing.

Modernisation and Mechanisation

Mechanisation of the hard operations of mining is essential to cut out the drudgery of human toil and to improve the output per man-shift.

In the working seams of collieries there is no large scope for mechanisation. But virgin seams should be properly laid out and planned.

Intensive mechanisation will be necessary when the coal requirements of the country cannot be met by the present extent of mechanisation. But it is imperative that steps be taken to manufacture machinery and for training operators before such mechanisation can be effected.

Proper Size Of A Colliery And The Collieries To Be Amalgamated

Of the 734 collieries in West Bengal and Bihar, 666 produce less than 10,000 tons a month. Of the 491 collieries which replied to our questionnaire 205 have an area less than 100 acres. Considering the large number of small collieries which did not reply, the percentage of such collieries to the total may also be large. Judged by the criteria of production and area, the bulk of the collieries are small.

Output : In view of the fact that a colliery is expected to work coal without avoidable waste, follow scientific and efficient methods of mining and exploitation of coal, adhere to and implement all labour legislations, by giving adequate facilities and amenities to labour, avoid unnecessary wastage of coal in boundaries and in the support of surface features, the Committee considers that the output of any colliery should not be less than 10,000 tons a month.

Area : The area of a colliery should be such as to be

able to produce 10,000 tons a month for a period of 50 years, but the area should not, in any case, be less than 100 acres.

Amalgamation : Any colliery which at the time of the implementation of the scheme of amalgamation is not producing in the region of 10,000 tons per month or has an area of less than 100 acres should be amalgamated with one or more collieries or part or parts thereof.

Amalgamated Unit : The amalgamated units shall consist of such number of collieries or part or parts of collieries as to fulfil the criterion regarding minimum production of 10,000 tons a month.

In forming such units due regard should be paid to the existence of fires, flooded areas, important surface features, such as railways, roads, rivers, etc., and the natural disturbance encountered in or about the area so as to ensure maximum recovery of coal.

Discretionary Power : (a) Notwithstanding anything contained in the preceding paragraphs the Commission may exclude any colliery from the amalgamation scheme, if it is satisfied that due to special circumstances its amalgamation is not advisable, or expedient, or in the public interest.

(b) It may also exclude from the scheme of amalgamation, collieries producing more than 6000 tons of coal per month but less than 10,000 tons, if it is satisfied that such collieries are capable of producing 10,000 tons per month within the period of a year, if demand and transport were available for their output.

The Objectives And Scope Of Amalgamation Of Collieries

We do not anticipate, generally, any technical difficulties arising out of the different collieries having the seams in different stages of development. In the case of non-contiguous collieries and particularly those existing in Karanpura, Ramgarh and Bokaro and other areas of Bihar, amalgamation is not possible now, but they may be amalgamated with any contiguous collieries which may be opened in future. The cases of horizontal fragmentation where separate undertakings work different seams in the same property should be investigated by the Commission. The system of appointment of Managing Contractors for different seams may also be worthy of study by the Commission.

Seam-wise fragmentation of collieries should be permitted only in special cases in the interests of the country. Cases of such fragmentation, wherever occurring should be examined by the Commission and if they are against the interests of Safety and Conservation they should be rectified.

Methods And Procedure Of Amalgamation And Adjustment Of Boundaries

The Central Government shall, in consultation with

the Governments of West Bengal and Bihar, appoint a Statutory Body, called the Collieries Amalgamation Commission, consisting of a Chairman of the rank of a High Court judge and two other members, one being a Senior Mining Engineer and the other a Senior Accounts Expert. This Commission will draw up a scheme of amalgamation of collieries and adjustment of boundaries, hear objections and give decisions regarding the same.

If the Government consider it necessary they may, in order to expedite the work, appoint two or more Commissions. They may also decide upon a common Chairman if considered necessary to ensure uniformity.

The Commission will be authorised to hold enquiries for the discharge of their function and as such will have the powers of a Tribunal under the Investigations Act, 1952.

All schemes of voluntary amalgamation and adjustment of boundaries will be notified to the Commission by the parties concerned.

The Commission will take all necessary steps for the purpose of implementation of the scheme of amalgamation of collieries and adjustment of boundaries including valuation of collieries.

The Time-Table

Submission of the Report	... 31.10.1956
Legislation	... 31.3.1957
Appointment of the Commission and Staff	... 30.4.1957
Collection of material for the Commission completed by	... 30.9.1957
Receipt by the Commission of notices of Voluntary Amalgamation and Adjustment of Boundaries to be effected by collieries	... 30.9.1957
Approval by the Commission of such Voluntary Amalgamation	... 28.2.1958
Completion by the Commission of Schemes of Amalgamation and Adjustment of Boundaries	... 28.2.1958
Expiry of Notices to Collieries to submit Objections to the Schemes (clear two months' notice)	... 30.4.1958
Award of the Commission on the Objections	... 31.7.1958
Date of implementation of Amalgamation and Adjustment of Boundaries	... 31.1.1959

The Central Government should appoint a Committee of three of its Technical Officers with powers to examine all proposals for voluntary amalgamation emanating from the collieries till the appointment of the proposed Collieries Amalgamation Commission.

The Committee will examine and modify, when necessary, and give its decision on any proposal submitted to it within one month from the date of receipt of the scheme.

An amalgamated unit formed voluntarily should have a minimum area of 100 acres, a production of 10,000 tons a month, sufficient reserves and a proper shape; but a unit may be formed to give an output of 6,000 tons a month, if it can be increased when necessary to 10,000 tons within one year.

Central Legislation Required

We have taken note of the fact that suitable steps will be taken by the Governments of West Bengal and Bihar to take over the rights of all intermediaries and we hope that by this step the difficulties in the way of amalgamation and adjustment of boundaries on this account will be removed.

We are informed that there is a proposal to make royalty rates uniform and that necessary steps are being taken.

Powers of amalgamation of mining leases will have to be taken by an amendment of Sections 5 and 7 of the Mines and Minerals (Development and Regulation) Act and the Mineral Concession Rules will also require amendment. Composite legislation is required to effect amalgamation of collieries and adjustment of boundaries and for the appointment of the Collieries Amalgamation Commission.

Valuation Of Collieries, Finance And The Organisation To Run The Amalgamated Units

When one or more collieries are amalgamated the share of each colliery in the amalgamated unit may be decided:

- (a) By mutual agreement between the parties;
- (b) According to the value of each colliery determined by the Commission on the following basis:
 - (i) Assets of the colliery consisting of mining rights, initial capital expenditure, shafts and inclines, machinery, plants and buildings, stores, stocks of coal;
 - (ii) Liabilities consisting of loans or encumbrances charged on the property should be deducted;
 - (iii) A surcharge equal to four times the net annual average profit, according to the Income Tax returns over a period of 10 years from 1945 should be added. The Commission may also consider whether in addition to these any surcharge should be added in respect of coal reserves in working seams.

In case a colliery owner is not willing to join the amalgamated group, the colliery will be absorbed in the group and the owner will be paid by the amalgamated concern a compensation to be determined in the manner

mentioned above. The compensation shall be payable in five equal annual instalments.

In order that the amalgamated units may function efficiently, financial assistance may be required and this will have to be provided through the three Government-sponsored organisations which advance funds for industrial undertakings. If this is not found possible a new Corporation should be started. This may be financed by a cess on despatches of coal.

The form of organisation to run the amalgamated units may be decided by the parties concerned, but when they fail to agree the Commission may decide the form of the organisation. In our opinion, Public Limited Companies would be the best.

Effect On Employment Of Labour

There is no likelihood of any appreciable change in the overall employment of labour due to amalgamation.

Only in the category of clerical and some other staff some workers may be rendered surplus.

Certain adjustments in the employment pattern will be necessary. We endorse the proposal which is separately under consideration for the creation of a pool for surplus colliery workers.

The process of rationalisation and mechanisation after amalgamation should be gradual and only after arrangements for the absorption of surplus hands are made.

If the surplus hands are not absorbed, they should be maintained till natural elimination or absorption elsewhere takes place; such maintenance will be on such terms and conditions as are provided in the Industrial Disputes Act.

Adjustments should be made in consultation with representatives of labour and without adversely affecting the emoluments of the workers or increasing their workloads.

SUBURBAN TRAIN (BOMBAY, CALCUTTA AND MADRAS) OVERCROWDING ENQUIRY COMMITTEE, 1955—REPORT

New Delhi, Ministry of Railways (Railway Board), 1956. 98p.,
Maps, Diagrams.

Chairman : Shri B. B. Varma.
Members : Shri A. C. Chatterjee; Shri K. M. Rau.
Secretary : Shri K. Sambamurti.

APPOINTMENT

The Suburban Train (Bombay, Calcutta and Madras) Overcrowding Enquiry Committee was constituted under the Ministry of Railways (Railway Board) vide their Resolution No. E55Col/73/3, dated November 10, 1955.

TERMS OF REFERENCE

- (i) To investigate into the problem of excessive overcrowding during peak hours in the Suburban Services at Bombay, Calcutta and Madras, and
- (ii) To suggest remedial measures.

CONTENTS

Introductory; Bombay Suburban Railway System (Western Railway—Central Railway); Madras Suburban Railway System (Metre Gauge—Broad Gauge); Calcutta Suburban Railway System (Suburban System South of Sealdah—Suburban System North of Sealdah—Subur-

ban System North of Howrah—South-Eastern Railway Suburban System); Overcrowding in Suburban Trains and Staggering of Working Hours and Establishments as a Remedial Measure; Increase in Train Carrying Capacity as a Remedial Measure; Increase in Number of Trains as a Remedial Measure; Other General and Specific Remedial Measures; Conclusion; Appendices I to X; Annexures.

RECOMMENDATIONS

We should like to conclude this report with a brief reiteration of the more important of our Recommendations, Railway by Railway. But before we do so, we would refer to the old adage, "knowledge is power", as apt here as elsewhere. Diagnosis precedes remedies, but a knowledge of the facts of the situation must go before either, which, in the present instance, can best be acquired by setting up an organisation to collect data of the travel needs of the suburban resident; the extent, the range and the time of the day of his journeys. From these details the nature of the train service and its timings follow easily. Hence our emphasis on the census of passengers, train by train, station by station,

and space-time-speed studies as the only reliable basis for the fairest distribution of the available resources and their optimum deployment.

One lesson that has to be learnt is that when large passenger concentrations take place, the number travelling from any point is great, and if a Fast Service from the different points can be run by turns, it saves time for the traveller and ensures the maximum utilisation of the stock. To deal with the surges of traffic, therefore, fast trains with a limited number of stops is the ideal solution and there is abundant evidence of it in the data we have collected. People by hundreds collect at each halt to catch the Fast Train even when it is overful and this, in our opinion, gives the key to the solution of the problem. The provision of really Fast Trains from different points in the morning and to different points in the evening is the need which requires to be satisfied.

In the case of Bombay, the Western Railway could do a lot more, in this direction, by replacing Stopping Trains by Fast ones, thereby putting in many more. They could serve their outer suburbs by stock other than EMU, and if during the rush hours, they concentrated their EMU stock on stations short of Borivli, there would be a far larger number of trains and a vastly improved service. This does not mean that the Railway does not require extra stock, but since EMU stock is neither standardised by the Indian Railways nor manufactured in India, the best course is to take early steps in this direction and phase their supply on a regular programme to enable the manufacturing industry to be assured of orders for a term of years.

In the meanwhile, fast long-distance trains should be run with stock indigenously manufactured but adopted for suburban travel and hauled by locomotives, be they electric, diesel or steam, as can be made available. This is not only more economical but just as fast and efficient for the special purpose of clearing large numbers of passengers during the rush hours for distant destinations. Terminals will require to be equipped to deal with engine-hauled trains and the reversal of engines, but there are no insurmountable difficulties in that direction. Even Churchgate could deal with such trains when the proposed yard extensions are completed, but, if this system is adopted extensively, a few more stabling lines would need to be added to that Yard.

The problems of the Central Railway are not very different from the above, and it is gratifying to note that this Railway does run a larger number of Fast Trains, but their operation is severely hit by the endeavour to provide direct train services to each destination, without requiring the passengers to change trains. These direct services to Thana, Bandra and Andheri via the Harbour Branch involve criss-cross movements, reduce the speed of travel and make operation unnecessarily complicated. In doing so, they upset punctuality, regularity and

flexibility not only of their own trains but also of the Western Railway, on which they run between Mahim and Andheri. If suitable transfer facilities are developed at stations of interchange the Railways' resources can be conserved by terminating the services from Victoria Terminus at Mahim and cutting out trains from Victoria Terminus to Thana via the Harbour Branch. Harbour Branch trains may run from Vadala Road to Chembur or Mankhurd but not to Thana. Straight services running forwards and backwards are calculated to simplify operation, and divert passengers to the faster runs.

The Central Railway possesses the advantage of having Main and Suburban Lines running right through its Suburban Section, and is in a better position to run engine-hauled Fast Trains to clear the rush-period traffic and to save on EMU stock, which is particularly useful for short runs.

Both the Railways could, with advantage, run their new rakes at greater speeds and fully utilise the large power units installed in them by working them on separate links providing more intensive and faster services. The slow runs, not popular during periods of rush, could be made with single units, thereby releasing more stock for fast trains.

On the electrified section of the Southern Railway, too, the problem is much the same—paucity of stock, and its uneven distribution has led to excessive overcrowding. For lack of terminal facilities, full use during the rush hours is not made of electric-engine hauled trains. Space is available for the development of facilities at the terminus to reverse engines from one end of the train to the other without much expense or trouble. If, during the rush hours, all trains on the Guindy-Beach Section are run with double units, reinforced with a third-class coach in between, and single units are employed on the Guindy-Tambaran Section, the utilisation of stock will fit in with the demands of traffic, overcrowding will diminish, and passengers will be more evenly distributed. If, in addition, each of the three electric locomotives that they have run out one train each during the period of rush, the service will be adequate to the needs of the present traffic.

The EMU stock has very little standing accommodation and is literally filled with seats some of which can, with advantage, be removed to create standing accommodation for short-distance passengers. This aspect can be exploited to a still greater extent on the third-class coaches that augment the loads of these EMU rakes by providing only standing accommodation on them.

On the Broad Gauge Section of the Southern Railway, there is very little overcrowding, and such that there is, can be easily eliminated by the provision of standing room inside the coach, and by running trains

with the full number of carriages. The latter step will need the shifting of the motor loading work from the Central station to other stations in Madras, which move is effected easily.

The problem on the Calcutta Railways, where steam traction is being replaced by electric traction, is of an entirely different nature as the vast possibilities of improved service with steam traction have been eclipsed by the general belief that nothing short of electrification will solve the problem of overcrowding. It is true that electric traction means improved speeds and this means enlargement of the area of the suburbs, but where overcrowding is concerned, it is more a matter of the type of the coach and accommodation in it than the mode of traction. Most of the stock of steam trains in Calcutta and elsewhere is of the obsolete pattern, very often unfit for Main Line use, with seating arrangement unsuited to the requirements of Suburban Service. Large crowds literally invade trains as they approach the city terminus. Whereas this area is wide in the case of electrified traction with fast speeds, it is nonetheless there in the case of steam trains, even though it is limited to 10 or 12 miles. It is, therefore, incumbent on the Railways to so alter the seating arrangement that these invading crowds get standing room and take shelter on the train instead of travelling on the footboards. The Railways' programme to spend crores on electrification offers a strange contrast to their parsimony in grudging *sic* an expenditure of even a few lakhs to build suburban coaching stock of adequate width and capacity. This position has perhaps arisen less out of a disregard for the comforts of passengers

than out of an imbalance in planning. Passengers in their eagerness, however, make the best of the cheap travel facilities offered on a Season Ticket, brave discomfort, and cram the trains that somehow will take them to work and back at the time that is most convenient to them.

We are firmly of the opinion that much-needed relief to passengers can be given by re-arranging the seats, by providing standing room on the existing stock, by the use of wider and more suitable stock, and by arranging to have those trains, which do not return immediately, hauled by tender engines of greater capacity, which in turn will allow the addition of more coaches. For Sections on which the capacity of terminal yards for the reception of trains, and the facilities for the disposal of engines and rakes have reached the limit, we suggest trials with engines at both ends, so that the trains can be worked backwards and forwards in much the same way as EMU rakes do.

For these observations we should not be regarded as having failed to appreciate the magnificent performance of the Railways in the handling of large volume of traffic with the very meagre equipment at their disposal. They are going all out and keeping the entire suburban stock in service, with the unavoidable consequence that there is no reserve left for emergencies. No wonder that in consequence proper standards of punctuality and regularity are not being maintained. We feel that the standards at present are below the levels, which the Railways desire to set before themselves, or which the public expect of a nationalised undertaking.

1956

ASSESSMENT COMMITTEE ON BASIC EDUCATION, 1956—REPORT

New Delhi, Ministry of Education, 1956. 87p.

Convener : Shri G. Ramachandran.

Members : Shri R.S. Upadhyaya; Dr. Saeed Ansari;
Dr. M.D. Paul.

APPOINTMENT

The Committee was appointed by the Ministry of Education in 1956.

TERMS OF REFERENCE

Following are the terms of reference :

- (i) To survey the existing situation regarding basic education in the various States, and
- (ii) To think out ways and means of bringing about effective improvements.

CONTENTS

Foreword; Introduction; Introductory Remarks; Places and Institutions visited; What we tried to assess and how; the General Factual Picture; Inadequacy of Compact Area Method; Need to turn all schools towards the Basic Education; Too many Interpretations of Basic Education; Training of Administrative and Inspecting

Officers; Training of Teachers; Basic Teachers Training at the Graduate Level; Research in Basic Education; Preparation of Literature; Some essential principles that should operate in every Basic Training Institution; Concluding observations on the training of Teachers; Conditions in Basic Schools; Teaching of English in Basic Schools; The type of Craft Teachers needed in Basic Schools; Certain necessary observations on Basic Schools in general; Pulse of public on Basic Education; Administration and Contents of Basic Education; The administrative set-up and Basic Education; Productivity of in Basic Education; Comparison of attainments in Basic and non-Basic Schools; Dovetailing of Basic Education with Higher Education; Linking Basic Institutions with various agencies engaged in Community and Rural Development Work; Conclusion; Summary of Recommendations; Appendices.

RECOMMENDATIONS

Our recommendations are brought together under seven headings as follows :

1. The Government of India.

2. The Government of the States.
3. The Universities.
4. The Administration.
5. Basic Teachers' Training.
6. Basic Schools.
7. The Public.

1. The Government of India

The Government of India should take appropriate steps to make it clear to all those concerned that the elucidation of Basic Education given by the Basic Education Standing Committee of the Central Advisory Board of Education has their concurrence. As a first step, the Central Advisory Board of Education itself should give its early approval formally after which the Union Ministry of Education may adopt it. In this connection, we have specially in mind the place assigned to productive work in Basic Education.

In view of the national significance and urgency of the situation, it has become necessary for the Union Ministry of Education to convene a conference of the Education Ministers as also of the Education Secretaries of the various States to make clear the Standing Committee's concept of Basic Education so that the development of Basic Education in the whole country may take place on generally approved lines and to be completed within specific time limits suited to the conditions of the different States.

The above Conference may well be followed by a declaration of policy by the Central and State Governments reiterating the place of Basic Education in educational reconstruction under the Second Five-Year Plan.

In the wake of the above conference, it will be necessary to hold a Basic Education seminar to be attended by the Directors of Public Instruction from all the States, so that the Heads of Education Departments in the States may be enabled to make their contribution to the development of Basic Education. The officers in overall charge of Basic Education in the Education Departments, whom we have suggested might be designated Joint or Additional Directors of Public Instruction, should also be invited to the seminar. The minimum duration of the seminar should be three weeks. The seminar, to be really effective, should be held in some places where Basic Education has already become a reality.

All-India and regional conferences on Basic Education should be arranged periodically in order that the workers in the field can come together, discuss difficulties, problems and experience and evolve, as far as possible, common solutions.

The Union Ministry of Education should undertake to educate public opinion in regard to the issues concerning Basic Education, through all methods of publicity open to the Government, utilising films, the radio, the

press, publications, exhibitions, etc., for the purpose. What is now being done is totally inadequate.

A Central Research Institute of Basic Education should be established under proper direction to initiate schemes of research, with scholarships available for research workers. Unless this Research Institute functions at the highest and broadest level, Education Departments in the States and others working for Basic Education will not look up to it for guidance.

A small special committee of educational experts in close touch with the numerous problems of Basic Education should be set up to lay down the criteria to evaluate the achievements and progress of pupils in Basic institutions and then to carry out assessments from time to time in terms of the criteria so formulated. This should be a high-level and permanent body.

A committee of specialists in the field should be set up to collect, edit and publish the large mass of manuscript literature even now available with innumerable Basic Training schools and Basic schools for the benefit of teachers and pupils. The publications will have to be in the main languages of India. Handbooks for educational administrators and others are urgently called for, as also reading books for children and guide and reference books for teachers and trainees. An authentic all-India magazine in the form of a 'Quarterly' may be published to guide all those engaged in the development of Basic Education. If such a quarterly is issued by the Union Ministry of Education, its value would be greatly enhanced.

A special brochure on the subject of the progressive conversion of all Elementary schools into Basic schools should be issued without delay by the Union Ministry of Education. This publication should show clearly how vital aspects and characteristics of Basic Education can be introduced simultaneously in all Elementary schools in quick stages even during the period of waiting for fully trained Basic teachers to come in with the correlated technique of teaching. The Ministry should also actually help the State Governments to implement this programme of preliminary conversion.

The various official and non-official agencies engaged in village reconstruction have to be brought together, so that these and the Education Departments can cooperate in the development of Basic Education. We have in mind the Community Projects Administration, the All-India Khadi and Village Industries Board, the Sarva Seva Sangh, the Hindustani Talimi Sangh, the Kasturba Gandhi National Memorial Trust, the Social Welfare Board, Rural Welfare Departments in different States, etc. Basic education and village reconstruction are often one and the same to a considerable extent in our country.

The whole question of Basic schools and Training schools being allowed to be conducted in simpler and

cheaper buildings suited to the village environment must be taken up seriously and a committee of engineers and administrators of Basic Education should be set up immediately to draw up plans and estimates in this connection.

The establishment of full-fledged postgraduate Basic Training Colleges can no longer be delayed. The Union Government in consultation with State Government should formulate their proposals and initiate negotiations with the universities to obtain their cooperation in this matter. The Inter-University Board and the University Grants Commission may be approached to secure their help.

The Union Government in consultation with State Governments should ensure that post-Basic Education gets due recognition and place in the present schemes for the reorganisation of Secondary education and that an adequate number of post-Basic schools will be provided for in the Second Five-Year Plan alongside of multipurpose high schools. Just as the Union Government has adopted a positive attitude towards Basic Education, it has become necessary equally to adopt a similar attitude towards post-Basic Education. Otherwise, educational reconstruction along lines of Basic Education will stand cut off in the middle.

The Union Government should insist that any financial aid given by it directly or indirectly to improve or spread Elementary Education is strictly earmarked by the States for Basic Education, i.e., Basic schools and Basic training schools.

When, after a few years, there is a greater development of Basic education, an assessment committee may be appointed to assess, scientifically and in a detailed manner, Basic Education in the country.

2. The Governments Of The States

State Governments should no longer delay to make a clear and unambiguous declaration of policy that all Elementary schools will be converted into Basic schools and that all teacher training at this level will become Basic teacher training within reasonable time limits.

State Governments should take immediate steps to establish statutory Basic Education Boards with adequate powers to guide Education Departments and to secure public cooperation. Such Boards should consist of officials and non-officials as in Bihar and Assam.

The compact area method of developing Basic Education should yield place to the whole of Elementary Education becoming Basic by the introduction, simultaneously and in quick stages, of important aspects of Basic Education in all elementary schools, as clearly pointed out in the body of the Report.

To make the above programme a success, Education Officers at all levels should be given short and effective

courses of training in seminars on Basic Education arranged by the State Governments.

Even more important is the need for the appointment of a Joint or Additional Director of Public Instruction in each State, to take full responsibility for converting all Elementary schools into Basic schools within a stipulated period. This will necessitate that such an officer should have all the necessary powers to do his job as explained in the Report.

Basic Education conferences should be arranged periodically on intra-district, district and regional levels.

State Governments should also take a clear stand on the economies of productivity in Basic institutions, and therefore take effective steps for the supply of raw materials, equipment, for repairs and for marketing of surplus produce.

A working formula for apportioning a part of the net income for direct benefit to school children and the other part for remittance to the Treasury should be prepared and put into effect.

Preparations of literature, assessment and research should be arranged at the State level, in addition to the work done at the level of the Government of India.

The establishment of full-fledged postgraduate Basic Teachers' Training Colleges should also be taken up at the State level along the same lines as indicated for the Union Government.

State Governments should also make up their minds to give post-Basic schools a full chance in their schemes for the reorganisation of secondary education.

Steps should be taken to effect economy in Basic Education by laying down appropriate rules so that cost of craft equipment is met by the pupils themselves. Those who can afford to pay the full cost should do so at the outset. Poorer children may pay in easy instalments. Craft equipment must essentially belong to the children. Whatever is produced should, as far as possible, be consumed by the teachers and pupils at reasonable rates and only the surplus need be taken over by the State for marketing.

Land gifts for Basic schools and Basic Training schools should be organised with the full moral support of the State Government.

States should arrange for the retraining of ordinary graduate trained teachers. The period of such training should not be less than five months.

States should take sufficient care that truncated Basic schools are not allowed to upset the development of Basic Education. The integrated course of eight years should be continually kept in view and what are called Junior Basic schools should be allowed only as feeder schools to senior Basic schools.

States should guarantee that all teachers' training at the matriculate level becomes Basic within a strict time

limit. No new teachers' training at this level, other than Basic, should be allowed from now on.

States should plan to provide every senior Basic school of eight grades with a graduate or equally Basic-trained headmaster.

3. The Universities

At a time when the Union and State Governments intend to go ahead with Basic Education, it would not do for our universities to stand aloof. So far the universities have not taken kindly to Basic Education. But to the four important points of assessment, teachers' training, dovetailing of Basic Education with higher education, and research, the universities can make a valuable contribution. Central and State Governments must, therefore, take up the matter with the universities to help at these points and particularly in regard to the establishment and recognition of post-graduate Basic Teacher's Training Colleges.

It will presently become necessary for universities to recognise post-Basic Education for purposes of admitting pupils passing out of post-Basic schools into colleges.

Provision will have to be made for the affiliation of postgraduate Basic Training Colleges to Universities.

4. Administration

Departmental officers, realising the value and inevitability of Basic Education, should give earnest, detailed and devoted attention to improving Basic schools and Basic Training schools. All the material conditions which alone can make Basic schools and Basic Training schools efficient and fruitful should be furnished in time and without reservation.

Inspecting staff at different levels connected with Basic Education should be fully trained in Basic Education. As Basic Education will remain for many years a revolutionary change in educational concepts and practices, the inspecting officers should cease to be fault-finders and become instead guides, collaborators and inspirers to the teachers in Basic schools.

Decentralisation of administration within the Education Departments is the *sine qua non* for the development of Basic Education. It is the key to efficiency and quick attention to innumerable details at this level. It is also the best way to secure local cooperation.

Examinations in Basic training schools and Basic schools should be mainly a continuous assessment of work and progress of pupils and this should be considered more important than written examinations. But to secure sufficiently high institutional standards there will be need to set up appropriate assessment boards.

It will be necessary to relax rules and regulations governing construction of school buildings to permit Basic schools to be conducted in cheaper buildings which will fit in with the village environment. Grant-

in-aid rules will therefore, need to be modified. At the same time, plans should be drawn up for the progressive improvement of school accommodation, consistent with finances available. The introduction of Basic Education should, however, not be made to wait for improved buildings.

Whereas in Travancore-Cochin and some other places, the shift system is firmly established and where it may be proved to be necessary in other places, Basic Education and shift system may be reconciled temporarily. In such cases the shift should be confined only to the earlier grades and subject to the strict condition that proper assignments of work would be given to children in the out-of-school hours and that the assignments will be completed and brought to the school systematically for review and correlation.

After careful study of productivity in Basic schools and Basic training schools in various States, each State Department of Education should lay down fairly elastic targets of production for such Basic institutions. Once such targets are laid down, no efforts should be spared to achieve them. Productive work should in no case become the excuse for lowering standards of learning. On the other hand, learning should become more real and richer through productive work.

English should be offered as an optional subject from the sixth grade onwards, wherever knowledge of English is considered necessary for entrance into high schools and other similar institutions. Where Hindi is not the regional language, it should be compulsory in the senior Basic grades. But where Hindi is the regional language, another suitable Indian language should be made compulsory from the sixth year onwards.

It is of the utmost importance to guarantee proper dovetailing of Basic Education with Secondary Education in such a manner that equal years of study in different types of institutions will be considered as of equal value for purposes of admission into institutions of higher education.

5. Basic Teachers' Training

Though we have stated that the training of teachers for Basic Education is, on the whole, conducted fairly well, we think it urgently necessary to make Teachers' Training more efficient and real. Improvement is called for in craft training in handling the technique of correlated teaching and in a new and dynamic approach to the study of psychology. Truncation of craft has played havoc with craft training and this must not be tolerated. Any craft for Basic Education must be a whole craft and not split into pieces, nor learnt in isolated parts. The technique of correlated teaching has largely remained incomplete because correlation has been mostly with productive work and very little with the natural and social environments. We have dealt with this matter in

detail in the Report. The new approach to the study of psychology will consist in giving every pupil-teacher the intellectual certainty that education through productive activities in life situations furnishes the best way of learning. Since any weakening of productivity in training will further weaken productivity in Basic schools, adequate stress must always be given to mastering the various processes of whatever productive work is chosen in Basic teachers' training. Even if Basic teachers' training is for a period of two years, which in our opinion, is certainly the correct period, pupil-teachers should not be given more than one major craft and one or two subsidiary crafts for each of the pupil-teachers has to be even more emphasised when the training period is only for one year, as in some States. Requiring every pupil-teacher to learn too many crafts is a complete mistake and must be strictly avoided.

Every obstacle in the way of appointing traditional craftsmen with highly developed skills as craft instructors in Basic training schools, even if they have no academic qualification, should be removed without delay or hesitation. Every time such a craftsman is appointed, a trained Basic teacher should be closely associated with him in the teaching of the craft.

Whatever crafts are selected for Basic teachers' training should be such as the teachers can later introduce them into the Basic schools as the medium of learning. If this is fully understood, there will be less loose talk of every kind of craft being introduced into Basic training schools.

Basic training schools in close touch with Basic schools and with practice teaching for pupil-teachers in some of them, can become excellent laboratories of research in Basic education. Therefore, one member at least of the teaching staff of such a training school should be made familiar with the technique of educational research and entrusted with research work in Basic education in the area.

Many Basic Teachers' Training Schools have already a growing mass of literature on various aspects of Basic Education. The continued and improved production of such literature should be encouraged. The literature thus produced should be studied and shifted and made available to the State level committee preparing Basic Education literature.

The staff of Basic training schools and the pupil-teachers under training should prepare manuscripts of reading books for Basic school children and these manuscripts should also go to the above State level committees.

Every Basic training school should plan and execute appropriate extension programmes to bring the staff and the trainees into close touch with the surrounding community. An important item of such extension work should be the education of the local public concerning

Basic Education. Such extension work will also give training to pupil-teachers in the technique of organising local cooperation.

Basic training schools should be residential for the purpose, among other things, of giving day-to-day training in actual living and practising of the principles of a cooperative democratic community work and learning together and producing much of what is necessary for daily life.

Sanitation, common kitchen and cultural and recreational activities based on community self-government will be the vital centres of such cooperative community and, therefore, of Basic Education.

Retraining of teachers already in service should be for a minimum period of five months and attached to Basic Teachers' Training School.

The essential principles indicated in the Report must operate in Basic Teachers' Training Schools.

Every Basic training school should take direct responsibility for the in-service training of all teachers in Basic schools in and around the locality in which the training school is located, and such in-service training should be carried out in collaboration with the local Basic trained inspecting officer.

6. Basic Schools

The grave error of either putting fully trained Basic teachers in Basic schools, lacking adequate facilities of raw materials, equipment, land, etc., and the equal error of sending untrained or inadequately trained teachers into Basic schools with all the necessary facilities, should both be strictly avoided, for both will be bad economy and waste from every point of view. So long as these two errors continue, there will be no efficient or vigorous development of Basic Education.

No school may be considered a Basic school or assessed as such, unless the following requisites at least are fulfilled:

(i) It provides for an integrated course of eight years of Basic Education and where there are only what are called the junior five grades, such a school should necessarily be the feeder for a senior Basic school.

(ii) Adequate quantities of needed raw materials are supplied in time.

(iii) Adequate craft equipment and repair material are provided.

(iv) There is minimum land available, according to local conditions with water facilities and in no case no less than three acres for a senior Basic school of eight grades.

(v) The majority of teachers at least are Basic trained. The untrained teachers get training under them all the time, but only till all teachers are trained or retrained.

(vi) There is community living and work based on democratic student self-government under the guidance of teachers.

(vii) Craft work is systematic and not truncated, ensuring minimum targets of production which may be settled in this regard by the Education Departments.

(viii) There is the correlated method of teaching, with correlation not restricted to productive work only, but also extending to the natural environment and the social environment.

(ix) There is commensurate extension work linking the school with the community and vice versa.

(x) Congregational prayers are organised.

(xi) A library with suitable books is available.

(xii) Cultural and recreational activities are organised.

Examinations in Basic schools will be wholly internal and based on assessment of continuous progress of students and cumulative records.

Emphasis should be laid more on character and personality development and on the cultivation of healthy attitudes and habits than on mere academic attainments. But this would never mean neglect of academic attainments.

As in the case of Basic training schools, we must emphasise the value of traditional craftsmen, possessing high skills, being associated with teaching in suitable manner in Basic schools and ultimately qualifying as Basic school teachers.

The method of assessment of Basic schools should be

clearly laid down as per our detailed suggestions in the Report, before assessment is attempted. We stress that the method of assessment should be appropriate to the objectives and processes inherent in Basic Education.

Basic Education should apply equally to urban and rural areas. During the interim period a common syllabus should be introduced in Basic schools and in other Elementary schools.

7. The Public

The public naturally constitute a very vital factor in the problem in a democratic State. The Union and State Governments must, therefore, consider ways and means of convincing the public about Basic Education and securing their co-operation for its rapid development. Our suggestions to the Union and State Governments in this regard may be adopted in this connection. Ultimately, however, it will be the efficient and successful working of Basic schools themselves which will bring public support and cooperation. The peaceful and constructive evolution of a socialistic pattern of society depends so largely on the development of Basic Education, that the education of the public in regard to all the relevant issues in and for Basic Education should be undertaken in all seriousness without delay.

COMMITTEE ON BUILDING FOUNDATIONS IN SHRINKABLE SOILS (BLACK COTTON SOILS), 1956—FIRST REPORT

New Delhi, Ministry of Works, Housing and Supply, 1958. 56p., Charts.

Convenor : Sardar Sarup Singh (replaced by Shri C.P. Malik).

Members : Shri U.G.K. Rao; Dr. H.L. Uppal; Shri Dinesh Mohan; Shri J.S. Narasimham; Shri M.S. Bhatia.

Secretary : Shri K. Rama Varman (replaced by Shri Shri Krishna).

APPOINTMENT

The Building Foundations in Shrinkable Soils (Black Cotton Soils) was constituted under the National Buildings Organisation in 1956.

TERMS OF REFERENCE

- (i) To enunciate the problem;
- (ii) To assess the present status of research;
- (iii) To collect the information available;
- (iv) To formulate recommendations; and

(v) To initiate further research, if any required.

CONTENTS

Background and Composition of the Committee; The Report; Appendix.

RECOMMENDATIONS

Where the depth of the black cotton soil is shallow it might be necessary to carry foundations to the inert soil below the black cotton soil stratum. While judging the inert nature of soil for founding the structure, mere colour should not be taken for guidance as it is found that even yellow soils met at that depth below black cotton soil layers exhibit swelling and shrinking properties. The footing may be either continuous footings or of pier or pillar and beam or arch construction.

Where the black cotton soil is deep the footing depth should, wherever practicable, be below the zone

of seasonal moisture change (which may extend upto about 12 ft. in some parts of the country) especially for buildings that cannot tolerate any movements. It is cautioned that even this depth may not be sufficient since clays are sometimes desiccated by average climatic conditions to depths far greater than those reached by seasonal variations. In such cases a structure which changes moisture equilibrium over a large area or sometimes even a small building with a large paved area adjacent to it, may cause slow swelling of deep layers with consequent having of footings.

In many cases it is impractical or uneconomical to take footings down to soil that will not expand. Under such circumstances the footings may be placed at a higher level, say five feet below ground level, but the footing pressures may be kept high enough to impede expansion. While it is impractical to design the footing to counteract entirely the expansion pressure, the latter is very much reduced if slight expansion is permitted. Thus, if the building superstructure is of a relatively flexible nature and if small movements can be tolerated, a smaller depth than 12 ft. can be considered. Traditional practices of providing rubber filling under foundations and floors and of constructing super-structure in coursed rubble in mud or lime mortar provides a certain measure of flexibility. The pressure at the foundation level from the dead load should not be less than the swelling pressure of the soil when saturated which is to be determined experimentally. Simultaneously there should be an adequate factor of safety against plastic failure.

The interior footings can be put at shallower depths than the exterior, or can have lighter unit loads if at the same depth. If construction is done when the soils are dry, interior depth and loading conditions should be the same as for the exterior.

It is not practicable always to transmit high pressures by means of continuous strips. The load from the building is then transmitted through masonry pillars or through bored piles which may be under-reamed where necessary. Such piles or pillars may be insulated from the surrounding soil by surrounding them with granular non-cohesive material.

Where the load is transmitted through columns or piers, the super-structure is carried on grade beams resting on these columns. The beam is necessarily placed close to the surface of the ground. It is a good practice to avoid contact of these grade beams with the soil to prevent action of swelling soil on the beam. It is best to leave the space between the grade beams and the ground surface empty with a dwarf wall protection on the two faces to prevent entry of materials. This is sometimes done by providing a sand cushion or a cushion of granular material below the beam. This is only a palliative and does not always prevent develop-

ment of stresses in beams due to swelling of the soil. The beams are designed taking the composite action of the masonry wall coming over it. Design of these beams will be indicated in a subsequent report.

When continuous strip foundation is used, it is sometimes usual to provide reinforced cement concrete bands at plinth level and at lintel level. Design of these bands is empirical and at best then serve only as crack control measures. These beams may be reinforced both at top and bottom. Empirically, the total reinforcement may be kept at one-and-a-half per cent of the area of the section for both the layers together. Raft foundations require careful calculation and have proved successful.

Considering the high cost of foundation of buildings in black cotton soil, it is uneconomical to construct single-storeyed buildings in such areas. Double-storeyed buildings not only distribute the cost of foundation over twice the floor area, but also assist in increasing the foundation pressure to counteract the swelling pressure. It was observed that in several areas with identical designs of foundations, the single storeyed buildings suffered greater damage than the double-storeyed structures.

The excavations for footings of foundations should not be allowed to become excessively dry, or wet, so as to lose its sheer strength. On the other hand, undertaking construction during the dry season and completing it before the outset of monsoon has proved successful.

The effects of moisture changes in active soils below the floors can be vertical movements of the order of several inches and such movements are also non-uniform over a large floor area. Design and construction measures to eliminate or minimise such effects should include—

- (a) removal of as much active soil as practicable;
- (b) replacement of fill of inactive soil properly compacted;
- (c) completion of fill to floor level with properly compacted inactive soil;
- (d) separation of floor slabs from contact with walls, footings, etc.;
- (e) support of floor slabs on flexible base such as rubber or boulder filling which provide relief against upward expansion pressures; and
- (f) floors suspended from the grade beams in the pile or pier and beam construction are the ideal methods of construction.

Sometimes ponding the area under the floor to an optimum condition before or after the foundations have been constructed is practised. In such cases the soil is allowed to get wet and to swell before the fill is placed. A good judgment is however, necessary to see that the soil does not swell excessively and soften to such an

extent that reconsolidation will lead to its settlement under the weight of the floor and the fill.

A commonly used specification to interrupt the capillary rise into the fill is by making the bottom one or two feet of fill of clean granular material, continuing upward with cheaper local material and finally topping off with a course of sand at least eight inches in thickness just below the floor. In such cases the local soil should be compacted to atleast 90 per cent of the optimum density and at two or three per cent higher than the optimum moisture content. While compacting these fills special precaution must be taken to avoid failure of external walls which might act as retaining walls for this purpose.

The desiccating action of fast growing trees in the vicinity of buildings should be taken into account while planting of tree is done near a newly constructed or existing building on active soils. Similary, removal of trees from the vicinity of buildings and covering up large areas near the building with pavements or starting extensive gardening operations near the building, should be done after careful consideration of their effects on the moisture movement towards and from the building area.

In the case of boiler rooms, hot process units, etc., measures should be taken to prevent the heat from

furnaces, etc., desiccating adjacent or underlying soils. Such measures include use of insulating materials, provision of air space with forced or natural ventilation, use of cooling water and even carefully regulated irrigation of the surface clay to prevent its drying out.

The cracking consequent upon the movement of soil can sometimes be very wide and there is often a tendency to insist on immediate repairs which involve filling the cracks with mortar. This is often a mistake. Cracks of this nature are seasonal and they tend to close in the wet season. The immediate filling of cracks with a dense mortar will, therefore, result in building up of high compressive stresses when the reverse movements take place. It is therefore essential that in such cases before any repairs are attempted the matter should be investigated by a soil engineer. Repair measures may include under pinning and removal of contact between soils and grade beams in the case of pillar and beam construction, correction of drainage conditions, location and repair of water leaks, establishment of evaporation barriers, alteration of thermal gradients by increasing the paved area round the building or decreasing it as necessary, and a variety of other operations followed finally by structural repairs.

INDIAN DELEGATION TO CHINA ON AGRICULTURAL PLANNING AND TECHNIQUES, 1956—REPORT

Delhi, Manager of Publications, 1956. 199p.

Leader : Shri M. V. Krishnappa.

Members : Shri P. N. Thapar; Shri Tarlok Singh; Dr. R. J. Kalamkar. (Shri L. C. Sayal, a staff member of the Ministry of Food & Agriculture also accompanied the delegation.)

APPOINTMENT

The Indian Delegation to China on Agricultural Planning and Techniques was constituted under the Ministry of Food and Agriculture in 1956.

TERMS OF REFERENCE

(i) General planning and inter-relationship between the Planning Commission, the Ministries and the other Governmental Organisations in China.

(ii) Agricultural planning including problems of techniques, fixation of targets, etc.

(iii) Methods of (a) implementation of agricultural plan, (b) agricultural extension, and (c) intensive cultivation.

(iv) Incentives given to farmers (a) through price support and/or parity between industrial and agricultural products, (b) subsidies and/or tax relief, and (c) others.

(v) Agricultural research, education and training.

(vi) Methods of collecting statistics of area and yield of important crops and data regarding area and yield of these crops for the seven years.

(vii) Progress Reports and Assessment of results of agricultural programmes included in the Plan.

CONTENTS

Introduction; The Tour, General Background; Administration and Planning: Techniques of Agricultural Planning; Statistical Assessment and Control; Measures

for Implementation—Agrarian Reorganisation; Measures for Implementation—Economic and Financial Measures; Measures for Implementation—Technical Reforms; Research, Education and Training; Conclusions and Recommendations.

RECOMMENDATIONS

Organisational Measures

On the whole, in India progress in land reform in recent years has been relatively slow, especially in some States. We consider that the land reform programme set out in our Second Five-Year Plan should be carried out speedily so as to create the conditions necessary for the rapid development of the agriculture.

The early implementation of proposals relating to cooperation in the Second Five-Year Plan is essential. The building up of strong multipurpose cooperatives is an important condition for the successful implementation of the agricultural production programme. In the National Extension and Community Development programmes, cooperation should be given the central place. A major test of progress in the N.E.S. and Community Development Blocks should be achievements in the development of genuine cooperatives through the voluntary participation by peasants. A bold programme of experiments in cooperative farming of different types should be organised, the details being worked out after the report of the Indian Cooperative Delegation to China has been received.

It would be useful to workers engaged in developing cooperative farming in India if accounts of individual agricultural producers' cooperatives in China which have been studied by members of the Agricultural and Cooperative Delegations are brought together as case studies in a single volume and made generally available.

It is important that, within the general National Extension Service pattern, technical staffs should have specific responsibilities and should be assisted in discharging them fully.

In addition to the technical extension service at the block level, there should be agricultural, animal husbandry and cooperative personnel also for each group of, say, 15 to 25 villages.

The agricultural extension staff at the block level should be strengthened by the addition of an engineer who will assist village cooperatives in working out schemes for minor irrigation, drainage and water and soil conservation which can be carried out with local participation and labour. There should also be a plant protection assistant.

For each group of 15 to 25 villages, there should be agricultural, animal husbandry and cooperative personnel.

The jurisdiction of the multi-purpose village level worker, which is now about 10 villages, should be

reduced, possibly to about one-half and the training programme for village level workers should be stepped up accordingly.

In-service training and short-term courses should be organised as a matter of normal practice for existing personnel as well.

It is essential that minimum standards of cultivation should be prescribed and enforced especially at the village level. The measures necessary for this purpose should be taken.

In addition to setting targets of additional production potential for the country as a whole and for individual States as is being done at present, targets of yield per acre should be fixed by the local authorities concerned for individual districts, National Extension Blocks and villages. The local people and representative farmers should be closely associated with this work.

Awards and citations to farmers and to villages which do well in the agricultural production programme should be given. The exchange of visits by leading farmers, especially small peasants, exhibitions, discussion groups, conferences, etc. should be organised as a regular feature in different localities.

Conditions should be created in which the bulk of farmers in India will work hard in the manner that only a small proportion do at present.

Economic And Financial Measures

The targets for agricultural credit proposed tentatively in the Second Five-Year Plan need to be revised upward in substantial measures and early steps should be taken to ensure an adequate provision of credit through cooperative channels whenever possible and through government agencies elsewhere. The administrative procedures relating to the grant of credit by cooperatives as well as by government agencies should be re-examined so that farmers can receive financial assistance within a week or at the most two weeks and without having to depend upon the favour of petty officials.

In the interest of agricultural production, it is essential that there should be guaranteed minimum prices for the principal agricultural crops such as foodgrains, cotton, jute, etc., with an assurance that the government would be prepared to purchase quantities offered at these prices. Minimum prices for different agricultural products should be fixed in relation to one another and in such a manner that production is encouraged in accordance with the planned targets.

For the marketing of agricultural produce, cooperative institutions by themselves may not be sufficient. It may be necessary, however, for the State to play a larger role in the organisation of rural supply and marketing than has been contemplated so far.

Technical Measures

With increase in the area under irrigation, there should be targets in every State, district, etc. for area to be put under two or three crops during the year.

The multiplication and distribution of improved seeds should be given the highest priority so that during the period of the Second Plan, the areas under rice and wheat and as far as possible under millets, maize and other crops are brought under improved strains.

Research work on crops for which improved strains have not yet been evolved should be intensified in each State and for this purpose funds should be made available.

An all-out effort should be made to develop local manurial resources such as farm yard manure, night soil, composting and green manuring as well as the utilisation of chemical fertilisers on a much larger scale than at present.

Manurial schedules should be worked out for all types of soils and crops. Experiments to study the effect of different types of fertilisers on the cultivators' fields should be undertaken.

Research on the usefulness of bacterial fertilisers under Indian conditions should be organised and the use of nodule bacteria for inoculating seeds of leguminous crops should be practised.

Advice to cultivators for the use of proper rotations on the basis of soil types and their economic needs should be provided.

Much greater attention than hitherto should be given

to dry farming methods which have been found successful.

Planting of high yield crops, such as, maize, potatoes, sweet potatoes and high yielding varieties of paddy should be encouraged. Investigations into the possibilities of developing the Japanese method of cultivation for potatoes should be carried out. Research in the economics of 'close planting' vis-a-vis the 'Japanese method' should be undertaken with reference to different crops and in different areas.

The engineering sections of the agricultural departments of State Governments should be strengthened. Arrangements for the sale of improved implements and supply of spare parts and repair services have to be improved.

Village level workers should be provided with light plant protection, soil testing and soil temperature equipment.

Vigorous measures should be organised in each area for the destruction of pests and animals which destroy crops.

State Governments should strengthen their research organisations and increase their research staffs to meet the demand for improved agricultural techniques which has arisen and is likely to develop further in all areas.

Arrangements for liaison between research and extension workers should be strengthened.

Improved seeds and plant material should be imported from China for trial and breeding in India especially in regard to cotton, rice, groundnut and green manure seeds.

IRRIGATION AND POWER TEAM ON LAKKAVALLI PROJECT (MYSORE STATE), 1956—REPORT

New Delhi, Committee on Plan Projects, 1957. 37p., Maps.

Leader : Shri N. V. Gadgil.

**Members : Shri Lal Singh; Shri M. Narasimhaiya;
Shri C. L. Handa; Shri G. N. Pandit.**

Secretary : Shri D. S. Borker.

APPOINTMENT

The Irrigation and Power Team on Lakkavalli Project (Mysore State) was constituted under the Committee on Plan Projects in 1956.

TERMS OF REFERENCE

To make a study of various aspects of the two Projects with special reference—

To study all aspects of the Project having a bearing on economy and efficiency with special reference to:

(a) Utilisation of trained personnel and materials;

- (b) Utilisation of machinery and equipment;
- (c) Construction—Plant lay-out;
- (d) Adequacy of original estimates and designs as evidenced from actual construction of the Project;
- (e) Phasing of construction with a view to studying whether—
 - (i) timely utilisation of benefits accruing from the Project has been ensured;
 - (ii) it is possible to accelerate accrual of benefits;
 - (iii) benefits could be increased by rephasing the Project at this stage;
- (f) Sufficiency of investigations conducted at the planning stage with a view to the formulation of Project Estimates;
- (g) The effect of the above study on the financial results of the Project, if any.

Generally to assess the progress made in construction, the reasons for shortfall, if any, and to suggest measures for improvements in the future.

To examine the possibility of decreasing dependence upon imported materials and equipment required for the Project.

To examine whether adequate steps have been taken by the authorities concerned for fixing and realising the contemplated water rates, betterment fees and/or any other rates, cesses or taxes.

Any other recommendation that the Team may like to make in order to ensure economy and efficiency in the construction of the Project.

CONTENTS

Introductory; Scope of the Project; Administration; Phasing of Construction Programme; Features of Design and Construction; Canal Works Needing Urgent Attention; Development and Management of Irrigation; Power Generation; Construction Costs; Summary of Report; Appendices.

RECOMMENDATIONS

The Project is designed to impound 90,000 million cubic feet of water on the River Bhadra, irrigating 2,34,000 acres of land in Mysore State, and generating 25,000 kw firm power, installed capacity being 40,400 kw.

The Project was initially started in 1947 and at the time of writing this report i.e., by June 1957, an expenditure of roughly nine crores was incurred out of Rs. 24 crores, the estimated cost of the Project. The dam is raised to nearly half the total height and irrigation was started on the left bank canal during the last year (1956-57). The excavation of the main canal is nearly complete in the first 50 miles, beyond which it has to cross a hill range through a tunnel, approximately two and three-quarters miles in length. This tunnel is yet to be started, to facilitate which special machinery worth about Rs. 30 to 40 lakhs would be necessary and the Team has recommended to Government of India to release the necessary foreign exchange required to purchase such of the machinery as might not be available from the surplus on other Projects in the country. The Government of Mysore have been aware of the urgency of this work and are now busy in taking all the necessary steps to expedite the execution, since the Project is scheduled to deliver irrigation water up to the tail end by June 1961. Also, the report has suggested an alternative list of machinery which would save about Rs. 10 lakhs.

The Irrigation and Power Team noted that there was another factor holding up the execution of the Canal beyond the tunnel portion viz. the problem of by-passing the Shantisagar Reservoir, within a few miles after the tail of the tunnel. This problem could be solved by recourse to any one of a number of alternatives which

were being discussed by the Mysore Engineers. The Team of Engineers and the Members of the Consultative Committee after discussing the matter with the State Engineers, proposed one of the alternatives, which happens to be the easiest and cheapest bringing a saving of Rs. 20 to 50 lakhs over the other possible alternatives.

The team has found the construction staff as generally sufficient and efficient. However, they have made recommendations to strengthen the organisations incharge of the designs and quality control over construction materials and techniques. The report reveals that the establishment charges on this project are only four per cent of the outlay, as against 10 to 12 per cent as considered normal by the Engineers' Seminar. The reasons for this are reported to be mainly due to the very low scales of salaries prevailing in the State and partly due to the under-staffing as mentioned before.

The report suggests the creation of another Circle under a Superintending Engineer to take up the construction of the Hiremalali Tunnel and the works beyond, so as to enable finishing of the work before the scheduled date.

The Report appreciates the Mysore practice of appointing a Standing Technical Advisory Board, consisting of the Chief Engineers of the State and retired Chief Engineers of the State and presided over by the Minister for P.W.D. The engineers work almost honorarily and provide an excellent consultation at all the stages of planning, designing and execution of Projects. This practice is recommended for emulation by other States engaged in construction of development projects.

The Report notes with appreciation the excellent manner in which the problem of Development of Irrigation has been tackled by the Mysore Government; who appointed a Committee known as Bhadra Reservoir Development Committee consisting of a Revenue Commissioner as a Chairman, with Chief Engineer, Director of Agriculture, Director of Public Health and the Superintending Engineer of the Project, as members. This Committee prepared the Irrigation Development Report, which not only surveyed all the irrigable area from irrigation point of view, but also from agricultural and health point of view, and prepared zone maps for irrigation with the proposed crop patterns for each village.

To implement the recommendations of the above Committee, another Committee was appointed, so as to expedite actual development of irrigation on the pattern set and enable the State and Society to realise the benefits of the Scheme without loss of time as soon as the irrigation facilities become available.

The State has also seen to it to decide the Betterment Levy etc. However, the report reveals a scope for and

recommends recourse to upward revision of water rates, as they are lower than those obtained in the Bombay State. In order that the irrigation management and administration should not be slack and haphazard, the Report recommends the adoption of the Block-system and the Canal Rules and the system of irrigation management, as practised in the Bombay State, as far as possible.

As Bhadra is in the Inter-State River Basin of Tunga-bhadra Valley, which covers the erstwhile States of Mysore, Hyderabad and Madras the utilisation of the waters by the different States is subject to an agreement reached between these three States. With the recent reorganisation of the States, the position has changed and it is only Mysore and Andhra Pradesh that have rights over these waters. Hence the report points out

the need for revising this agreement. Also, it is recommended that the earlier restrictions in regard to carrying over the waters in the Bhadra Reservoir from year to year should be removed; as such a carry-over would increase the firm electrical energy output annually, without affecting the interests of the State lower down.

The Report appreciates the fact that this Project is mostly carried out by utilising only the local labour and material, without adopting much mechanisation, and avoiding rare and costly building materials like cement which are very sparingly used, as the bulk of the masonry is all in lime mortar.

In conclusion the Report recommends expeditious sanction of adequate funds for the Project to enable its completion within the target date.

TEAM FOR THE STUDY OF COMMUNITY PROJECTS AND NATIONAL EXTENSION SERVICE, 1956—REPORT

New Delhi, Committee on Plan Projects, 1957. 175p.

Leader : Shri Balvantray G. Mehta.

Members : Shri Shankar Dayal Sharma; Shri B. G. Rao; Shri Phool Singh; Shri G. Ramachandran.

Secretary : Shri D. P. Singh.

APPOINTMENT

The Team for the Study of Community Projects and National Extension Service was constituted under the Committee on Plan Projects in 1956.

TERMS OF REFERENCE

To study and report on the Community Projects and National Extension Service with a view to economy and efficiency with specific reference to the following aspects:

(i) The content of the programme and the priorities assigned to different fields of activity within it.

(ii) The arrangements for the execution of the programme with special reference to:

(a) Intensification of activities in the sphere of agricultural production;

(b) Coordination between

(1) the different Ministries/Departments at the Centre;

(2) the Centre and the States; and

(3) the different agencies within the Community Projects Administration and other State Government Organisations and Departments;

(c) The organisational structure and methods of work with a view to securing a greater speed in the despatch of business.

(iii) The assessment of the requirements of personnel for Community Projects and National Extension Service and examination of existing training facilities in order to meet the growing requirements of personnel for extending the coverage of the programme.

(iv) The assessment of the extent to which the movement has succeeded in utilising local initiative and in creating institutions to ensure continuity in the process of improving economic and social conditions in rural areas.

(v) The methods adopted for reporting upon the results attained by the Community Projects and National Extension Service.

(vi) Any other recommendation that the Team may like to make in order to ensure economy and efficiency in the working of the Community Projects and the National Extension Service.

CONTENTS

Introduction; Part I—Concept and Approach; Democratic Decentralisation; Methods of Work; Programme Planning; Coordination at the Centre and between the Centre and the States; Administrative Pattern—Coordination within the State; People's Participation in Community Works; Work Among

Women and Children; Work in Tribal Areas; Surveys, Evaluation and Methods of Reporting; Training of Personnel; Farming; Cooperation; Rural Industries; Health; Primary Education; Social Education; Some Special Programmes (Sarvodaya, Saghan Kshetra and Gramdan etc.); Measures for Economy, Efficiency and Speed; Minute of Dissent by Shri B.G. Rao; Part II—Summary of Recommendations; Note on Financial Implications; Subjects for Special Study or Further Examination.

RECOMMENDATIONS

Introduction

In addition to evaluation by Programme Evaluation Organisation another body should make a review, after every few years, of the progress made and problems encountered, and advise on future lines of action in connection with the community development programme.

Concept Of Approach

The emphasis should shift without delay to the more demanding aspects of economic development and the priorities as between the different activities should be supply of drinking water, improvement of agriculture and animal husbandry, co-operative activities, rural industries and health, followed by all others.

Democratic Decentralisation

The government should divert itself completely of certain duties and responsibilities and devolve them to a body which will have the entire charge of all development work within its jurisdiction, reserving to itself only the functions of guidance, supervision and higher planning.

At the block level, an elected self-governing institution should be set up with its jurisdiction co-extensive with a development block.

The panchayat samiti should be constituted by indirect elections from the village panchayats.

Each of the municipalities lying as enclaves within the jurisdiction of a block should elect from amongst its own members one person as a member of the panchayat samiti. Secondly, State Governments may convert predominantly rural municipalities into panchayats.

The functions of the panchayat samiti should cover the development of agriculture in all its aspects, improvement of cattle, promotion of local industries, public health, welfare work, administration of primary schools and collection and maintenance of statistics. It should also act as an agent of State Government in executing special schemes of development entrusted to it.

The annual budget of the samiti should be approved by the Zila Parishad.

Main resources of income of the panchayat will be property or house tax, tax on markets and vehicles, octroi or terminal tax, conservancy tax, water and

lighting rate, income from cattle ponds, grants from the panchayat samiti and fees charged from the registration of animals sold, etc.

The compulsory duties of the village panchayats should include among others provision of water supply, sanitation, maintenance of roads, land management, collection and maintenance of records and other statistics and the welfare of backward classes.

The judicial panchayat may have much larger jurisdiction than even a Gram Sewak's circle, and out of the panel suggested by village panchayats the sub-divisional or district magistrate may select persons to form judicial panchayats.

Methods Of Work: Programme Planning

The broad distribution of the budget provision should be prescribed by the Centre. Within this pattern each State should evolve its own schematic budget, in consultation with Central Ministries.

All schemes sponsored by different departments in addition to those under the block budget, and financed out of State funds, including loans, and/or people's contributions, should be integrated with the block budget schemes at all levels and an integrated plan for the entire State should be evolved.

The present system of dividing the community development programme into three phases of N.E.S., I.D. and P.I.D. leads to two-fold waste and frustration on account of the non-availability of resources during the N.E.S. and P.I.D. stages. This distinction should be replaced by a continuing programme of six years, the unspent funds of each year being carried forward to the following year within certain limits.

The original budget ceiling of Rs. 15 lakhs should be restored.

Coordination At The Centre And Between The Centre And The States

Where the Central Government desires to introduce any new scheme on a country-wide basis, it would be correct to advise the States only on the broad lines of the scheme and allow them to work it out with necessary modifications.

Research schemes should not merely be appropriately coordinated but mainly worked out by the States, leaving to the Central Ministries the role of helpful adviser.

The Planning Commission and the Central Ministries, dealing with rural development, should evolve a procedure whereby once a scheme is included in the Plan, it should not need further detailed examination in a Central Ministry unless fresh and unforeseeable circumstances have developed.

It is essential to allow State Governments a large measure of discretion in details like fixation of pay-scales of personnel, designs of buildings, etc.

Cooperation and rural self-governing institutions which are not receiving adequate attention in the Ministries concerned and which are closely connected with the programme of Community Development should be brought under the Ministry which deals with the coordination of rural development activities all over the country, namely the Ministry of Community Development.

Administrative Pattern—Coordination Within The State

The area of operation of the Gram Sewak should be reduced and the number of Gram Sewaks increased to about 20 per block.

With the limited funds and scanty trained personnel available, pooling is the only effective answer to the requirements of community development programme. With increasing resources in due course, specialised service agencies may be provided.

A Gram Sewak should not be placed in charge of an area with a population exceeding 800 families or 4000 persons.

A closer link should be established between the Gram Sewak and the village panchayat immediately.

The block should not have more than 20 circles, each circle not exceeding 4000 population.

The most useful arrangement for associating the S.D.O. with development work would be to give him supervisory control over the block development officers under him and to delegate to him some of the powers now vested exclusively in the collector.

People's Participation In Community Works

Public participation in community works should be organised through statutory representative bodies which should also take over the maintenance of these works.

Work Among Women And Children

The work of women welfare should be directed from one point alone and one general policy adopted and followed.

Suitable smokeless chulhas need to be designed for different areas instead of one type all over the country.

Training centres of Gram Sewikas should stress less on theory of sanitation than on its actual practices, personal and environmental cleanliness being drilled in their daily lives at the centres.

The care of the cow, the kitchen garden and poultry keeping which constitute the most effective welfare work for the rural women should receive the primary attention of women workers in the villages.

Knitting, embroidery and tailoring have little economic value excepting in villages near large cities. Training in elementary use of thread and needle is necessary so that women can mend clothes for the family.

In villages which surround large towns and cities, cookery classes can be started with profit.

Work In Tribal Areas

A thorough survey and study should be carried out before a detailed budget of a block is drawn up.

Right type of personnel with sympathy and understanding for the tribal people should be selected, preferably local people.

Efforts should be made to induce the people in tribal areas to take up settled cultivation wherever possible.

A careful attempt should be made to introduce new crops especially cash crops.

Training centres for rural arts and crafts should be started with necessary modifications to suit local conditions, indigenous talent and raw materials available in the area.

The system of education should be of the basic type, so that the gulf between the educated and uneducated may be as narrow as possible.

Surveys, Evaluation And Methods Of Reporting

For a coordinated approach in reporting, the revenue set up, the planning set-up and the statistical department should, as far as possible, work as a unified agency. For certain information, the local school master's services can be utilised on a small additional remuneration.

The Gram Sewak, block level extension officers, as well as the Block Development Officer, should maintain a handbook-cum-diary to enable the district level officers to watch the progress of work.

A progress assistant should be provided at the block level, wherever this has not been done already, for coordinating statistical work of all branches and looking after crop-cutting surveys and special studies.

At the district level, a district statistical officer should function under the technical control of the Director of Economics and Statistics and the administrative control of the Collector.

At the State headquarters a statistical unit should be set up if not already in existence.

A seasonal review of the different activities at the close of each season should be made by each worker in respect of various items of a seasonal nature.

The States can profitably organise evaluation either of the programme as a whole or certain aspects of the programme; *ad hoc* bodies may be set up for the purpose.

Training of Personnel

Age limits for direct recruits as Gram Sewak should be 18 to 30 years. The departmental candidates should be taken purely on the basis of merit and the age limit relaxed upto 40 years.

The criteria for 'rural background' of a candidate should be that his parents or guardians live in non-urban areas and he himself spends his vacations at home.

Various tests, viz., physical fitness, general knowledge, aptitude for development work, leadership and initiative etc. should be the basis of selection and should spread over a number of days.

The training programme of Gram Sewak should also include the use of simple medicine chest, elementary survey training and measures for soil conservation, etc.

Inspection of various institutions imparting training to Gram Sewaks should be done occasionally.

The concept of job training should be strengthened by (i) attaching a block to every centre, and (ii) approach to rural problems followed by work in the blocks.

The integrated course for Gram Sewak should be for full two years with a brief break in the middle.

Training centres should be located in genuine rural areas.

Agriculture research institutions and the training centres should function in close association.

A scheme of apprenticeship as part of the training programme should be drawn up for every Gram Sewak by attaching a small batch of Gram Sewaks under an efficient B.D.O. for a period of at least one month which should not be included in the two years of training.

The training syllabus for Gram Sewikas should include methods of approach to village women and some knowledge of two village industries.

Each training centre should have some land for a flower and kitchen garden and also maintain a small dairy, poultry farm and an apiary.

Farming

The targets for additional production should be broken down upto block and Gram Sewak's circle.

Greater attention should be given for evolving and distributing improved varieties of coarser grains as also of other grains suitable for unirrigated areas.

Distribution of improved seeds on the basis of *sawai* or smaller additional percentage in kind will ensure timely and adequate supply.

Central Government should explore all possibilities of increasing local production of chemical fertilizers.

Village panchayats should buy wheel-barrows for supply to farmers on hire.

The State Governments should examine both types of soil conservation schemes, viz. (i) Bombay type by departmental agency, and (ii) U.P. type worked on self help basis. A judicious combination of good points of both types might produce better results.

Current methods of fruit preservation have to be simplified and made cheaper.

Greater attention needs to be given to starting nurseries in each block.

Rates for the supply of electricity for irrigation works should not exceed the rates for industrial purposes.

Water rates for the second crop should be reduced to encourage double cropping.

More concerted efforts should be made to encourage farmers to raise green fodder crops and for popularisation of silage-making.

Milk cooperative societies have to be organised on proper lines in the vicinity of towns and cities.

Poultry keeping has to be intensified through youth clubs, financial assistance to Harijans, backward classes etc., replacement of indigenous by exotic cocks and giving proper technical guidance.

Greater technical guidance is needed for improving the breed of pigs.

Fisheries should receive larger financial allotments and greater administrative attention especially in Community Development Blocks.

Cooperation

A multi-purpose cooperative society for a village or a group of villages working in close association with local panchayat or panchayats, as against societies for different lines of activity, remains the only correct course to be followed.

The criteria and qualifying conditions for obtaining funds from the Reserve Bank of India should be laid down in precise terms so that the co-operative societies in the blocks can take maximum advantage of the loan facility of Rs. 3 lakhs provided in N.E.S. budget.

The entire training programme should be oriented to the elimination of official control from the field of co-operation.

Students' co-operative societies for the supply of stationery and text books should be organised in high schools.

Rural Industries

Planned coordination in the working of cottage, village and small-scale industries is needed so that they do not cut at and pull down each other.

A number of peripatetic training centres should be opened in rural areas.

Health

The Medical and Public Health Departments should be combined under a single head at the State, regional and district levels in those States where such integration has not yet taken place.

The State Governments should examine the possibilities to train the staff employed in Health Centres for specialised services relating to malaria, filaria, tuberculosis, leprosy and venereal diseases.

Certain tried and proved indigenous remedies for common ailments handed down by way of family tradition should be collected, examined and their knowledge made widely known.

Improvement of the existing houses in rural areas by increasing ventilation and by making them more liberal should be effected.

Primary Education

Provision for primary education in C.D./N.E.S. schemes should be used to supplement allotments of the States to strengthen existing schools except in educationally backward areas.

At least blocks should be provided with necessary funds and trained personnel to achieve the immediate goal of introducing free and compulsory primary education.

Social Education

The aim of social education should be (a) to acquaint people of the meaning of citizenship and the way democracy functions; (b) to induce citizens to learn how to read and write; (c) to impart proper training for refinement of emotions; and (d) to instil a spirit of toleration among citizens.

Vikas Melas, Shibir or training camps for villagers' campaigns or drives for different activities may be utilised as supplementary activities requiring day-to-day participation by the villages.

Cultural teachers and reformers may be utilised in educating the masses.

Circulating libraries of suitable films should be maintained by the States. Subsidised radio sets should be provided to the villagers.

Village leaders should be asked to broadcast talks; discussions during rural camps etc., recorded and broadcast.

Some Special Programmes—Sarvodaya, Saghan Kshetra and Gramdan

The Sarvodaya Area Committee should not be

merely advisory but have fuller powers so that the Sanchalak becomes only the constitutional Chairman.

Area of operation of existing Sarvodaya Block should be extended to cover the whole N.E.S. Block.

The workers of Kshetra Samiti may be utilised to create necessary atmosphere as well as machinery required for intensive development of cottage and village industries, prepare one block and then move to contiguous blocks.

The community development work should be closely interlinked with Gramdan movement, Gramdan village areas being preferred in the selection of new blocks.

Measures For Economy, Efficiency And Speed

The provision for personnel at the block level should not be spent outside the block i.e., on the staff at State headquarters.

No project located outside the block should be financed out of the block funds and no scheme involving a large expenditure undertaken excepting when a scheme is essential and unavoidable.

The grants-in-aid should be non-lapsable at all levels.

All jeeps should be withdrawn from the blocks, only exception can be a jeep for the Mukhya Sewika.

The State and Central Governments should take remedial action to avoid the holding of meetings and seminars with considerable pomp.

Too frequent meetings and too frequent visits by outsiders absorb a very considerable part of the working hours of the block and the village staff.

The publication of too many similar publications printed on expensive paper with unnecessary pictures and a number of articles irrelevant to the purpose needs careful re-examination by the Ministries concerned.

EXPORT CREDIT GUARANTEE COMMITTEE, 1956—REPORT

Delhi, Manager of Publications, 1957. 304p.

Chairman : Shri T. C. Kapur.

Members : Shri W. A. Foges; Shri E. P. W. DaCosta;

Shri S. Gupta; Shri S. C. Roy.

Secretary : Shri T. S. Ramaswami.

APPOINTMENT

The Export Credit Guarantee Committee was constituted under the Ministry of Commerce and Industry vide their Resolution No. EP/56, dated January 7, 1956.

TERMS OF REFERENCE

(1) To examine the suggestions made in this behalf and to consider the scope of the Export Credit Guarantee Scheme;

(2) To make recommendations in regard to :

(a) the nature of risks to be covered;

(b) the basis on which premia should be fixed;

(c) the structure of the organisation that will be required for the implementation of the scheme; and

(d) any other matter necessary for the successful operation of the scheme.

CONTENTS

Introductory; Case for Export Credit Insurance; Exporters' Risks; Periods for which Risks can be Covered; Percentages of Cover; Buyers' Risks; Export Finance; Split of Risks; Spread of Risks; How and when Claims should become Payable; Basis of Premium Rates; Structure of the Indian Insurance Organisation; Miscellaneous; Summary of Conclusions and Recommendations; Acknowledgements; Appendices from I to X.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Case For Export Credit Insurance

An export credit insurance scheme is an important export promotion measure, and this scheme should be started in India without delay, for the following reasons :

(a) Demand for credit terms is being made for all exports and is likely to increase even for traditional exports of jute fabrics, tea, minerals, cotton textiles.

(b) More small and medium-sized firms are coming into the exports business and this class of firms has a great need for insurance.

(c) Export credit insurance makes export finance facilities more readily available.

(d) The insurance helps the exporter to develop new markets.

(e) Competition from exporters from other countries having insurance facilities can be met if, other things being the same. Indian exporters are placed in a similar position as their competitors in regard to credit insurance.

(f) There is a pressing need to earn foreign exchange.

Exporters' Risks

The types and extent of risks covered by export credit guarantee organisations differ from country to country. Nevertheless, the practice of all the countries conforms to two basic principles, viz.,

(a) Except in the case of some pre-shipment risks, only those risks are covered which arise out of events occurring outside the exporter's country.

(b) Only those risks are covered which are outside the control of the exporter and, generally, of the buyer. Any risk which can be avoided by the exporter and/or the buyer should be excluded.

All risks which contravene the above principles or for which cover is available from other insurers are generally excluded.

The Indian Export Credit Insurance Organisation should cover the following risks.

Post-Shipment Risks

(a) **Diversion Risks:** Due to interruption or diversion of voyage outside the exporting country, the exporter may have to incur in respect of goods shipped from his country, additional handling, transport or insurance charges which it is impracticable to recover from the buyer.

(b) **Import Control Risks:** The buyer's import or exchange licence may be cancelled or may have expired and it cannot be renewed; or new restrictions may be imposed on the import or payment. The risk should not be covered where

(i) Import or exchange licence is necessary but is not held by the buyer when the order is placed and he is unable to obtain it when goods arrive; and

(ii) Import or exchange licence is cancelled for buyer's fault.

(c) **Repudiation Risk:** A buyer may repudiate his contract, refuse to open a letter of credit or to accept goods. This risk is to be covered only in the following cases:

(i) When the buyer is a public body which either cancels the contract unilaterally or refuses to accept goods not due to any fault of the exporter;

(ii) When the buyer repudiates the contract and is adjudged insolvent;

(iii) Where a buyer repudiates the contract and the exporter takes legal steps, obtains a final judgement against the buyer and even by executing the decree he cannot receive the full price of the goods because the buyer has no assets from which recoveries can be made.

(d) **Insolvency Risk:** The buyer may become insolvent.

(e) **Default Risk:** The buyer may accept the goods on credit terms and on the due date refuse to make payment or may temporarily be unable to pay.'

[Both (d) and (e) together are called Commercial or Del Credere Risks.]

(f) **War and Civil War Risks:** There may occur war between the buyer's country and the exporter's country; or war, hostilities, civil war, rebellion, revolution, insurrection or other disturbance may occur in the buyer's country or other countries through which the goods must pass. In all these contingencies, the exporter may suffer losses.

(g) **Transfer Risk:** The operation of a law or an order, decree or regulation having the force of law, which, in circumstances outside the control of the exporter and of the buyer, may prevent, restrict or control the transfer of payments from the buyer's country to the exporter's country.

(h) **Omnibus Risk:** Any other cause not being within the control of the exporter or of the buyer which arises from events occurring outside the exporter's country. Omnibus risk includes risks of port, strikes overseas, dock clearance delays and natural catastrophes (floods, earthquakes and hurricanes) in the buyer's country. This

also includes the risk involved in the change in the standards of food and other products after goods have been shipped, provided the goods at the time of shipment were of the standard then in force.

[Risks (a), (b), (c)(i), (f), (g) and (h) are called Political Risks.]

Pre-Shipment Risks

Risks (a) to (b) of 3 as also the Export Control Risk (i.e., non-renewal or cancellation of the export licence or the imposition of fresh restrictions on the export of goods) should be covered during the pre-shipment period. The Export Control Risk should, however, be not covered in the following cases:

(i) Where export licence is necessary but is not held by the exporter when the order is placed and he is unable to obtain a licence at a later date, and

(ii) Where the export licence is cancelled on account of the fault of the exporter.

Risks Of Special Transactions

The following risks of special transactions should be covered:

(i) C.I.F. Risks, i.e., increase in insurance and freight rates after a sale has been concluded on a "cost, insurance and freight basis".

(ii) Risks of exports on consignment basis.

(iii) Risks [similar to those in (ii) above] of goods sent for display in a foreign fair.

(iv) Risks pertaining to non-receipt of money for services rendered to a principal in a foreign country.

(v) Expenses incurred on market surveys, publicity, stock-holdings and other promotional measures, for the development of a particular market, if such expenses are not fully recouped by sales made in that country.

Risks Not To Be Covered

The following risks should not be covered:

1. Repudiation Risk, except in the cases mentioned in 3(c).

2. Exchange Fluctuation and Devaluation Risks.

3. During the pre-shipment period

(a) Ban or restrictions on the import of raw material or semi-manufactured goods which may be necessary to manufacture the goods to be exported;

(b) Increase in export duty or the imposition of a new export duty which, under the terms of the contract, cannot be recovered from the foreign buyer;

(c) Non-availability of railway transport, shipping space or of berthing space for steamers;

(d) Strikes;

(e) Increase in manufacturing costs.

The Indian Export Credit Insurance Organisation should, when covering commercial risks, set limits on the amount of business which can be covered at any

one time for an exporter on any of his buyers. The limits should be of the following types:

(a) The Credit Limit, which limits the insurer's liability in respect of the value of shipments which have been delivered to the buyer on credit terms or placed at his disposal on cash against documents or equivalent terms.

(b) The Contract (or Trading) Limit, which limits the insurer's maximum liability in respect of all the goods in course of (manufacture and) shipment to the buyer at any one time.

2. The amount of the Credit Limit should be agreed by the insurer for each buyer on application by the exporter, or a discretionary limit can be agreed, within which the exporter, on the basis of his own knowledge and experience of the buyer, can ship without reference to the insurer. Normally the maximum amount of this discretionary limit should be Rs. 4,000 in the case of credit transactions or Rs. 8,000 in the case of transactions on cash against documents or equivalent terms.

The Contract Limit set in the case of shipment policies relating to goods in course of shipment should be equal to twice the amount of the Credit Limit and in the case of pre-shipment policies relating to course of manufacture and shipment should be equal to four times the amount of the Credit Limit.

Periods For Which Risks Can Be Covered

The periods for which the risks of the Indian exporters should be covered are specified below:

(a) Pre-Shipment Risks: For a period of four months preceding the date of shipment.

(b) Post-Shipment Risks:

(i) For Exports of Raw Materials: Upto three months and, exceptionally, four months from the date of shipment.

(ii) For Exports of Consumer Goods: Upto six months from the date of shipment.

(iii) For Exports of Light Capital Goods: A spread of payments upto two years from the date of shipment.

(iv) For Exports of Capital Goods: A spread of payments upto three years from the date of shipment.

These periods may be extended in exceptional cases.

The risks for a credit period of more than six months should be covered only where

(i) Foreign competition warrants such a course;

(ii) The type of goods and the nature of the order justify extended credit;

(iii) A substantial payment has been received before or on shipment;

(iv) The work content is high;

(v) Any necessary authority from the Reserve Bank of India has been obtained.

Percentages Of Cover

An accepted principle of credit insurance is that the

insured should carry a part of every risk. The Indian organisation should in the initial stages give cover for:

- (a) commercial risks—upto 80 per cent;
- (b) political risks—upto 85 per cent;
- (c) promotional policies—equal to 50 per cent of the unrecovered expenses.

These percentages, except in the case of (e), are of the value of an invoice.

Export Finance

Credit Insurance policies are accepted by banks as a satisfactory form of security and therefore export finance becomes more readily available. The Indian export credit insurance organisation should provide by its regulations for the registration of assignments the benefits under their policies made by exporter to their banks.

In the case of contracts of national importance, the Indian Export Credit Insurance Organisation should have the authority—

(a) to provide, in the case of approved parties, financial guarantees to banks and others with no risk to them but with recourse to the exporter where necessary in connection with the export of goods, to the extent of 80 percent of the bills provided a policy to cover both the commercial and political risks has been taken out and assigned to the organisation;

(b) to provide, where necessary, as agents of the Government, financial help for the purchase of Indian exports on extended payment terms.

The Indian organisation should not normally discount or rediscount insured bills so long as such facilities are available from other organisations, unless the Government specially instructs it to do so.

Split Of Risks

The ideal policy for an exporter is that which covers both the commercial and political risks together because every insurable risk which can cause loss will be provided for; but a demand by certain trade interests for a split of commercial and political risks can be accepted.

Having examined the demand regarding split of risks in the light of the practices of foreign Export Credit Insurance Organisations, it is recommended that a limited split of risks should be allowed and separate policies made available for exports to private buyers in respect of:

- (a) Commercial and political risks together, and
- (b) The following political risks together, viz.
 - (i) Import Control Risk.
 - (ii) Diversification risk, if under the sale agreement the charges for diversion have to be borne by the exporter.
 - (iii) Non-payment due to moratorium or freezing of commercial debts by an order, decree, or law of the Government of the buyer's country.
 - (iv) Non-transfer provided that the payment has been

made within 30 days of the due date. In case devaluation takes place before a claim is paid, the amount to be paid in Indian currency by the insurer to the insured should be based on the devalued rate. After a claim is paid the recoveries should be shared by the insured and the insurer. This will be applicable also in case of any change in the value of the currency.

(v) C.I.F. risk.

(vi) Risk of change in standards imposed in the buyer's country on the import of food and other products after goods have been shipped.

(vii) War between the buyer's country and the exporter's country before expiry of 30 days of due date.

For exports to public buyers, either of the proposed policies described in (a) and (b) of clause (2) should cover all political risks, including default and repudiation of the contracts.

Spread of Risks

It is necessary that an expert credit insurance organisation should have as wide a spread of risks by countries, by trades, by buyers, and over time, as possible. To achieve this object, the Indian organisation should require every exporter to insure all his exports of the trade in a period of twelve months (normally excluding sales on confirmed irrevocable letters of credit). In special cases, however, an exporter may be permitted to exclude his exports to any one or more countries, or to any one or more buyers provided, in the opinion of the organisation, what is left after this exclusion is a proper spread of risks and provided also the exporter agrees to pay an additional premium.

Exporters dealing with goods in more than one trade should be allowed, in appropriate cases, to insure only a substantial group of exports which might come under a single reasonable category. Premium rates should be assessed from the outset at the level, which it is expected will prove economic on the basis of business anticipated at the end of five years. Patience will, therefore, be needed in the first few years which will be spent in building a stable organisation, and some losses may be experienced.

Evidence on the desirability of any element of compulsion for selected commodities has been far from uniform. Broadly, it is thought that the business community does not welcome compulsion in any form, and as the advantages of a limited compulsory scheme are considered to be illusory, it would be inexpedient to depart from the general principle of voluntary credit insurance. However, if after the facilities of the organisation have been available for a reasonable period, a request is made by the great majority of any particular trade that all exports in the trade, not on a letter of credit basis should be covered by the scheme; their request should be examined; if it is agreed, a rebate in premium rates of bet-

ween 15 and 25 per cent should be possible. Similar arrangements might be made, should the Government be satisfied that the use of credit insurance by all exporters of a particular commodity is in the interest of the export trade as a whole and of the individual trade concerned.

How And When Claims Should Become Payable

(1) Claims, in respect of goods invoiced in foreign currencies, should, like the premiums, be payable in Indian currency at the rate of exchange effective on the date of commencement of risks.

(2) The Indian Export Credit Insurance Organisation should pay claims as under:

(a) For claims under insolvency risk—as soon as the buyer is adjudged insolvent;

(b) For claims under default risk—six months after the due date;

(c) For claims under C.I.F. and diversion risks—as soon as the proof of loss to the satisfaction of the organisation is furnished;

(d) For claims under promotional policies issued in connection with the development of particular markets—60 days after the final audited accounts for the period covered by the policy are furnished to the organisation;

(e) For claims under Transfer Risks—six months after the due date;

(f) For claims under all other risks—six months after the date of the event which is the cause of loss.

(3) Recoveries made after payment of claims should be divided between the insurer and the insured in the same proportion in which they carry the risks.

Basis Of Premium Rates

As the nature and intensity of political risks depend upon the economic and political conditions of the countries to which the goods are exported, different rates of premiums are necessary for exports to different countries. Premium rates cannot be published and must be kept confidential.

The Indian Export Credit Insurance Organisation, like organisations in other countries should work on a 'no profit, no loss' basis. The premiums therefore should be assessed to cover only the net claims and the expenses of management.

The following factors should be taken into consideration in fixing the premium rates:

- (a) The types of risks and their causes;
- (b) The markets to which the goods are exported;
- (c) The type of goods;
- (d) The period for which the risks are covered;
- (e) The past experience of the exporter and the spread of risks offered by him for insurance; and
- (f) The expenses of management.

For fixing premium rates, countries may be grouped

as shown below, according to the nature and intensity of the risk involved:

(a) Countries which are important traditional buyers of Indian goods, where the administration of economic affairs is particularly efficient, and where the foreseeable risks of loss from transfer or other causes are very small;

(b) Countries whose economies are soundly based and well administered and where transfer losses are unlikely to occur;

(c) Countries which are relatively stable, but where minor risks of losses can be foreseen;

(d) Countries whose economies are not broadly based where fluctuations may occur with possible risks of loss;

(e) Countries which are relatively unstable or whose economies are deteriorating and where there is persistent risk of transfer and/or other losses;

(f) Countries whose economies are chronically unstable, where transfer and/or other losses have recently occurred or are in prospect.

Risks also differ according to the nature and/or type of the commodities. To fix premium rates for each commodity separately will not be practicable. The goods exported may, therefore, be grouped as under:

(a) Raw materials;

(b) Manufactured goods which are easily saleable in more than one market; and

(c) All other goods not included in (a) and (b) such as expensive manufactured articles and goods whose resale possibilities are limited that are subject to changing fashions, that deteriorate rapidly; or those goods falling under (a) and (b) of which the insurance organisation has unsatisfactory experience:

The rate of premium will also vary with the period for which credit is allowed by the exporter. It would be advisable to fix basic rates of premium applicable to the cases where cash is to be received against documents in the buyer's country and where credit upto 30 days after delivery is given. Where payment terms provide for credit longer than 30 days an extra premium dependent on the period in excess of 30 days should be charged at a rate fixed for every additional month. These considerations apply to post-shipment risks.

Where pre-shipment risks are also covered, the premium will have to be charged for a longer period than in the case of cover for post-shipment risks only. It is desirable to place the buyers' countries for pre-shipment risks into the following three groups:

(i) Where pre-shipment risks are very slight;

(ii) Where additional risks exist in the pre-shipment period but are not considerable;

(iii) Where the additional risks in the pre-shipment period are very real.

The premium rating schedule for transactions involving payment terms of more than six months' credit from

the date of shipment is based on a forward projection of the normal premium schedule, and takes into account the following additional factors:

- (a) The length of the manufacturing period;
- (b) The spread of shipments and payments;
- (c) The class of buyer (whether public or private); and
- (d) The degree of specialisation of the goods.

Where an exporter offers for cover under a single policy a large volume of exports, he should be allowed a small rebate in the premium charged, depending on the spread of risk and the saving in administrative work. Conversely, an exporter who wishes to exclude from his policy shipments to one or more markets must expect, if his proposal is accepted, to be charged somewhat higher rates of premium than if he had insured all his good and bad markets together.

An estimate of the expenses of the insurance organisation should be prepared as also of the premiums likely to be collected in the first five years of the working, and on that basis expense leading to the risk premium can be arrived at.

Structure Of The Indian Export Credit Insurance Organisation

A study of the structure of credit insurance organisations in other countries shows that the organisation can be

- (a) a government department; or
- (b) a corporation owned by the State; or
- (c) a private company acting for and on behalf of the State.

There is no private company in India transacting credit insurance business even for home trade. So far as the Indian organisation is concerned, the choice lies between a Government Department and a State-owned Corporation.

The widespread view of the trade should be accepted that the work of the Indian organisation should be entrusted to a Corporation wholly owned by the State.

The Corporation should be named Export Risks Insurance Corporation.

The Corporation should be set up with the following objects:

(a) For the purpose of encouraging, facilitating and developing trade with other countries, it may make arrangements for giving guarantees to or for the benefit of persons carrying on business in India, being guarantees in connection with the export, manufacture, treatment, or distribution of goods, the rendering of services or any other matter which is conducive to the said purpose;

(b) For the purpose referred to in (a), it may make arrangements for giving guarantees to or for the benefit of persons residing in, or belonging to a foreign country,

being guarantees in connection with goods exported or services rendered from India;

(c) It may give facilities for financing exports;

(d) It may act as agent of the Government to

(i) give guarantees beyond its scope which are considered by the Government as necessary in national interest;

(ii) acquire any securities (which expression includes bonds, stocks, shares, bills and promissory notes) which the Corporation has guaranteed, hold any such security for such period as may be directed by the Government, collect any sum falling due whether by way of principal or interest in respect thereof, and dispose of any such security at such time and in such a manner as directed by the Government;

(e) it may do all such things as may be incidental to or consequential upon the carrying out of its object mentioned in clauses (a) to (b) above.

The authorised and subscribed capital of the Indian Corporation should be Rs. 5 crores of which 10% should be paid up. This will enable the Corporation to carry at any time, a risk upto 50 crores which is considered to be the maximum that can be achieved by the end of the first 5 years.

To infuse confidence in the mind of the exporters, it is necessary that every policy issued by the Corporation should carry Government guarantee.

The management of the affairs of the Corporation should vest in a Board of Directors consisting of seven members including either a whole-time Chairman or a whole-time Managing Director. The Directors may delegate powers for day-to-day administration to the principal officer whether he be the Chairman or the Managing Director.

There should be an Advisory Council consisting of not more than 21 members representing the export trade, banks engaged in financing exports, various Export Promotion Councils and Commodity Boards. The Council will advise the Corporation regarding the insurance needs of the export trade, the changes taking place in the export trade and the steps to be taken to provide for new conditions. The Advisory Council may elect two members to be appointed as Directors of the Corporation.

The registered and main office of the Corporation should be at New Delhi. The Corporation may open branch offices and, where necessary, set up Local Advisory Boards to help and advise the Branch Offices appoint brokers to introduce business and appoint agents elsewhere than in India for enforcing any right that, as a result of contract of an insurance, may have vested in the Corporation.

The Corporation may borrow monies, raise loans, and for that purpose, if necessary, may issue and sell bonds and debentures bearing such rates of interest and

subject to such terms and conditions as the Board of Directors may approve.

Miscellaneous

Export credit insurance would appear to fall under the definition of "miscellaneous insurance business" given in section 2(13B) of the Insurance Act, 1938 (IV of 1938). The Indian export credit insurance organisation would be a Corporation wholly owned by the State and as such would appear to be exempted under section 118 of the Insurance Act. In case business done by the Government through a corporation owned by it is held to be not any insurance business carried on by the Central Government a change in the Insurance Act will be necessary.

Since premium rates are to be kept confidential, if any rule or regulation requires an exporter to show the premium paid separately in any return or statement, suitable amendment should be made to such rule or regulation.

Every policy issued by the Corporation should have clauses to the following effect:

(a) The Proposal and Declaration thereto shall be incorporated with this policy as the basis thereof and if any of the statements contained in the Proposal or Declaration be untrue or incorrect in any respect, this

policy shall be void, but the Corporation may retain any premium that has been paid;

(b) Due performance and observance of each and every stipulation contained herein and in the Proposal and Declaration thereto shall be a condition precedent to any liability of the Corporation hereunder.

The export credit insurance organisation being a non-profit making concern, reserves built up should not be treated as profit in the commercial sense and should not be made liable to income-tax. For this purpose necessary legislative or administrative action should be taken.

The premiums paid by an exporter to the Export Risks Insurance Corporation should be an allowable deduction for the purposes of income tax.

The Indian Export Risks Insurance Corporation should become a member of the *Union D'Assureurs Pour Le Controle Des Credits Internationaux* (Union of Insurers for the Supervision of International Credits).

The attention of the Committee has been drawn to various difficulties which appear to be retarding the development of the export trade. These are outside the terms of reference of the Committee. Nevertheless, they have been included in the summaries of the written and oral evidence in Appendices VI and VII, with a view to effective steps being taken by Government to resolve them.

MACHINE TOOL COMMITTEE, 1956—REPORT

Delhi, Manager of Publications, 1956. 30p.

Chairman : Prof. M.S. Thacker.

Members : Shri M.K. Mathulla; Shri S.J. Shahaney; Shri L.T. Madnani; Shri K.S. Raghupati; Shri P.N. Batra; Shri N. Krishnaswamy; Shri S.L. Kirloskar, Shri D.S. Mulla; Shri G.R. Damodaran.

Secretary : Shri R.K. Gejji.

APPOINTMENT

The Machine Tool Committee was constituted under the Ministry of Commerce & Industry vide their Resolution No. E.I. 23(19)/55, dated January 14, 1956.

TERMS OF REFERENCE

(i) To review the existing capacity to manufacture machine tools in the private and public sectors and study their plans for further expansion.

(ii) To assess the country's requirements of machine tools in the different categories and determine the gap

between requirements and present manufacturing capacity.

(iii) To investigate causes responsible for impeding faster development of the industry and suggest how they can be eliminated.

(iv) To suggest ways and means of utilising the existing capacity fully and developing it further to meet the requirements of the country for machine tools, as assessed by the Committee and to report whether, after ensuring such full utilization, there is any necessity to set up new units—and if so to indicate the size and scope of such units.

(v) To review the existing capacity to design machine tools, to survey the facilities available for training machine tool designers and to suggest ways and means of helping the industry in securing training facilities at home and abroad for such staff.

(vi) To study the range of general purpose machine tools required by the various Departments of Govern-

ment with a view to standardising to the most widely popular requirements, and to examine the feasibility of other Government Departments using similar machines and adopting them as their standards. In carrying out this examination, the Committee will take particular note of the standardisation work already completed by the Railways.

(vii) To suggest the machinery for laying down the standards of performance and the specifications for inspection of the final product in order to ensure that the product measures up to the required quality, and to recommend the most suitable organisation for testing, and certifying the products as conforming to the prescribed quality specifications.

(viii) To investigate and report on such other matters as the Committee may think fit regarding the development of the Machine Tool Industry in India.

CONTENTS

Introduction; Working of the Committee; Preliminary Remarks; Recommendations; Demand Forecast; Programme of Manufacturing; Acknowledgements; Appendix.

RECOMMENDATIONS

Terms Of Reference No. (1)

"To review the existing capacity to manufacture machine tools in the private and public sectors and study their plans for further expansion."

The existing capacity to manufacture machine tools has been investigated by Sub-Committee No. 4.

Questionnaires were circulated to ascertain the installed capacity of the various units producing machine tools. The information received was carefully analysed and the capacity of each unit was arrived at on the following basis:

(i) Installed machine-hour capacity.

(ii) An improvement factor was anticipated due to technical help and collaboration reaching proportions of 48% rise in efficiency by 1961.

(iii) The actual time required at present for the production of the different types of machine tools was projected utilising the efficiency factor as per (ii) above in order to determine the proposed manufacturing capacity in 1961.

Another questionnaire was issued to ascertain the

plans for expansion of units. The plan of manufacture recommended in Table II at page 11 (of the report) takes into account such programmes for expansion as were considered by the Committee to be reasonable.

Terms Of Reference No. (2)

"To assess the country's requirements of machine tools in different categories and determine the gap between requirements and present manufacturing capacity."

Demand Forecast: The assessment of the requirements of machine tools, especially in an expanding economy is very difficult. Normally forecasts are based on past experience but when rapid industrialisation is taking place, it is difficult to rely on past statistics. In these circumstances, the Committee feels that any estimate of demand can at best be an intelligent guess.

The following documents were made available to the Committee to enable them to form their assessment:

(i) Report of Railway Equipment Committee regarding the machine tools required by Railways.

(ii) Analysis of the licences issued by the Development Officer (Tools) and the Chief Controller of Imports for machine tools during the year 1955.

(iii) Census of machine tools, which has been referred to in paragraph 3.3.

In this connection, it has been pointed out that the licences issued during the year do not always represent the actual number of machine tools imported during that period. An alternative source, viz., figures of actual imports compiled by the Director-General of Commercial Intelligence & Statistics, and published in the "Accounts relating to the Sea, Air, Land Trade and Navigation of India" was considered but as these are not categorised in sufficient detail, it was felt that the licences issued over a period of one year would be more representative of the approximate demand.

With the information available and based on the experience of the members of the Committee, a reasonable factor has been applied to arrive at the expected increase in the demand. The demand thus estimated is given in Table I. This covers only such categories of machine tools as are expected to be manufactured during the Second Plan Period. The demand for other types is comparatively less and diversified. The manufacture of these may, therefore, be taken up later:

Table I
Demand Forecast

Sl. No.	Code No.	Description	Estimated Annual Demand (1960-61) Nos.
1.	040101 to 040115	Drilling machine	2,050
2.	040120 to 040144	Drilling machine	1,135
3.	040201 to 040203	Drilling machine	425

Table I (Contd.)

Sl. No.	Code No.	Description	Estimated Annual Demand (1960-61) Nos.
4.	060101 to 060161, 060601 to 060609 and 060701 to 060713	Grinding machine	O.D., Universal & I.D. 180
5.	060801 to 060892	Grinder	Surface 200
6.	060901 to 060999	Grinder	Tool & Cutter 205
7.	090101 to 090103	Capstans	Upto 1" 72
8.	090104 to 090108	Capstans	Above 1" 195
9.	090201 to 090202	Turrets	210
10.	110201 to 110203, 110301 to 110303 and 110401 to 110403	Milling machine	Plain, Vertical & Universal No. 1 105
11.	110204 to 110205, 110304 to 110305 and 110404 to 110405	Milling machine	Plain, Vertical & Universal Nos. 2 & 3 360
12.	120101 to 120103	Planers 3" wide upto 8" stroke	20
13.	120104 to 120132	Planers higher upto 16" stroke	35
14.	100120 to 100123	Lathes 12" to 16" Swing	120
15.	100124 to 100129	Lathes 16" to 20" Swing Heavy	128
16.	100130 to 100133	Lathes 16" to 20" Swing Light	205
17.	100201 to 100209	Lathes 20" to 24" Swing Heavy	55
18.	040204 to 040205	Surfacing and boring lathes	12
19.	110206 to 110208, 110306 to 110308 and 110406 to 110408	Radial Drilling machine 3" capacity and above	18
20.	090203 to 090220	Milling machines similar to Cincinnati No. 4 and heavier	18
21.	180104 to 180105	Turrets bigger than Ward 7	42
22.	020201 to 020228	Slotting machines 16" stroke & above	10
23.	020101 to 020137	Vertical boring machines	32
24.	101100	Horizontal boring machines	17
25.	101201 to 101203	Wheel lathes	10
26.	101400	Axle lathes	8
27.	060400	Roll turning machines	4
28.	120133 to 120173	Roll grinding machines	4
29.	221501 to 221550	Planers 20' & above	2
30.	222501 to 222509, 130101 to 130804 and 160101 to 169900	Hammers, Power	10
31.	400101 to 549900	Sheet metal machinery	Rs. 1.5 crores (in value)
		Wood working machine tools	Rs. 1 crore (in value)

Terms Of Reference No. (3)

"To investigate causes responsible for impeding faster development of the industry and suggest how they can be eliminated."

Lack of Guidance: Although the importance of this industry to the nation has been accepted in principle, effective steps do not appear to have been taken so far to ensure a planned and rapid development. Of necessity, private enterprise has worked to meet the requirements of a fluctuating economic cycle and not as part of a national programme. This has resulted in the manufacture of machine tools most easy to sell. Absence of

statistical data regarding the demand from time to time has prevented development of new designs.

Government has taken some steps to protect this industry by banning import of such of those items as are produced indigenously to graded standards. Facilities of free inspection by a third party viz., the Government are provided to ensure quality by granting a certificate of standard by an impartial agency. The Committee, however, feels that much more will have to be done to develop this industry as a national asset. It is essential that topmost priority should be accorded to its requirements.

Technical Know-how: Another important lacuna has

been the lack of technical know-how. The skill developed for the manufacture of machine tools in the industrially advanced countries is the result of long experience. It is possible to close that technological gap in far less time through the willingness of many industrialised countries to share their factories in the public sector collaborated with a foreign firm. It is desirable that Government encourage foreign collaboration on satisfactory terms, for further expansion of the industry.

The Committee has noted that the technical know-how imparted through foreign technical assistance has benefited certain industries. If such foreign technical assistance in the field of machine tool manufacture could be secured, the development of the industry would be accelerated. Experts who might be obtained under these technical assistance schemes should stay with the manufacturing units sufficiently long to demonstrate the results of their suggestions. It is expected that about 5 to 10 experts covering various fields of technology such as foundry, machining, tooling, designing, methods, planning, heat treatment and assembly would be required by each unit. The Committee, therefore, recommends that Government secure a team of technicians and make them available to the indigenous manufacturers at a price they can afford. The services of the experts in the various fields may be phased out as required. As this programme requires very highly specialised engineers, special attention will have to be given to their selection. The Committee is of the opinion that the manufacturers should be represented on any recruiting team which should be composed of personnel with experience of the industry.

Raw Material: The main raw materials required for the manufacture of machine tools are pig iron and steel, carbon and alloys. Due to the sudden spurt of demand, there has been a general shortage of these items. Manufacturers of machine tools have found it difficult to obtain their requirements. Very often applications have to be followed up in person to expedite results. It has been brought to the notice of the Committee that similar conditions exist in the procurement of import licences for some of the essential components. It will be realised that if the senior personnel of the factories are to spend their time and energy in following up, it will be difficult for them to concentrate on their real work of manufacturing and developing machine tools. It is, therefore, requested that necessary action be taken to see that these handicaps do not stand in the way of development of industry.

Financial Assistance: With increased tempo of expansion programmes, individual firms in the private sector are bound to feel the necessity of installing additional plant and equipment to balance production. As some of them may require financial help, the Committee recommends that Government consider such requests liberally.

Terms of Reference No. (4)

"To suggest ways and means of utilising the existing capacity fully and developing it further to meet the requirements of the country for machine tools as assessed by the Committee and to report whether after ensuring such full utilisation, there is any necessity to set up new units and if so, to indicate the size and scope of such units."

Present Production: The present manufacturing activity of the firms either in the private sector or in the public sector is confined to the production of only a few types of machine tools such as lathes, drilling machines and shapers. Though some attempts have been made to manufacture machine tools like hydraulic shapers, caps-tans and surface grinders, so far only prototypes have been produced. Organized manufacture of large milling machines, grinding machines, turrets and similar other machine tools has not been established. It is essential that the manufacture of all types of machine tools should be developed in the country as early as possible.

Development and Expansion: From the point of view of maximum utilisation of the existing capacity, the Committee has taken into account not only the capacity as represented by the capital equipment installed, but what is of greater importance, the technique and skill developed by the various units. As the Committee's main concern is the development of as many types of machine tools as possible within a short period, it recommends a broad base for the development of this industry. Different types of machine tools can be developed by different units simultaneously to produce within two or three years such items as are required in large numbers. These include milling machines, radial drills, grinding machines, turrets, planers and lathes of modern design. The Committee feels that this broad-based development will require modernisation of plant in some factories. Balancing machinery may also have to be installed which will increase individual capacity by about 30% and help to develop the industry on sound lines.

Programme of Manufacture: Sub-Committee No. 6 has considered a detailed plan and recommends a programme of manufacture for the various units to utilise the existing capacity in the machine tool industry. The Committee has accepted this programme, shown at Table II. It may be pointed out that an analysis of the capacity to produce machine tools is a difficult task. The number which can be produced by a given unit vary with the design and type of the product taken up for manufacture. A rational programme on a broad basis has, therefore, been recommended. Where surplus capacity exists, the Committee recommends the development of additional categories of machine tools. Existing activities of the firms consistent with the programme recommended will be the first priority. Machine tools to be manufactured thereafter should be in the order of

priority proposed. It is expected that development of the different items can go on simultaneously depending upon the engineering resources of the individual concern, but production will follow the priority laid down. Particular attention is invited to the fact that Investas who are at present making lathes will give up their manufacture gradually. Similarly, Hindustan Machine Tools have been recommended the manufacture of a production

lathe of the same dimensions as their present H.22, as it is felt that the present lathe is over-engineered for general requirements. The programme of manufacture by Pragas will (it is recommended) be confined to lines which are at present well established by them. At Kirloskars, the consumers' preference for modern design will cause the phasing out of cone-pulley lathes. This will also be the case with Coopers.

Table II
Programme of Manufacture

<i>Firm</i>	<i>Item of Manufacture</i>	<i>Code Range</i>	<i>Priority</i>
Messrs. Cooper Engg. Ltd.	Geared shapers upto and including 32" stroke. (Gradual changeover from cone-pulley to geared head.)	150101 to 150106	I
	Planers, upto and including 6'×6'×16' table.	120101	II
	Slotters, upto and including 21" stroke.	180101	III
Messrs Hindustan Machine Tools (Pvt.) Ltd.	*Lathes 17" Swing, present and allied models.	100124 to 100129	I
	Milling machines (No. 2 and No. 3) Plain, Vertical, Universal and Manufacturing (Heavy type).	110204, 110205, 110304, 110305, 110404, 110405, & 110504	II
	Grinding machines O.D., Universal and I.D.	060101, 060106, 060601, 060609, 060701 & 060713	III
	**Radial drilling machines 2" and above	040203, 040205	IV
	*Lathes, 20" to 28" Swing	100130, 100139	V
	Production jig borers	0204	VI
	*Lathes (other types)—Capstans and turrets	(Group 10 and 09)	VII
Messrs. Investa Machine Tools & Engineering Co. Ltd.	Drilling machines, Pillar 1½" to 2"	040122 & 040123	I
	Drilling machines, Column upto 3"	040124	II
	Drilling machines, Radial below 2"	040201 & 040202	III
Machine Tool Prototype Factory	Lathes, Geared head 10" Swing	100111 & 100112	I
	Lathes, Capstan 1"	090101	II
	Grinders, Surface 18" and 24"	060801	III
	Grinders—Tool & Cutter	060901 to 060921	IV
	Lathes—Capstan 1½"	090104	V
Messrs. Mysore Kirloskar Ltd.	*Lathes—12" to 28" Swing	100121 to 100139	I
	Lathes—Capstan 1½"	090105	II
	Lathes—Capstan 2½"	090107	III
	Lathes—Turret 3½"	090203	IV
Messrs. Praga Tools Corporation	Drilling Machines Pillar 1" and 1½"	040122	II
	Milling Machines No 1	110201, 110203, 110301, 110303 & 110401, 110403	III
	Lathes, Bench	100110	IV

*Shri M.K. Mathulla considered that overlapping in the programme of manufacture of lathes is not desirable.

**Shri D.S. Mulla considered that this item be developed by Investas also.

Implementation: With the programme recommended above, the existing units when modernised and equipped with balancing plant would be booked to capacity during the Second Five-Year Plan period. Detailed phased programmes should be obtained from each manufacturer and approved by Government. It is essential that the individual firms should adhere to the programme once it is approved by Government. Stringent measures should be adopted to see that the programme is implemented. Where a firm fails to take up an item on the programme, another firm doing allied work should be permitted to take it up if their capacity permits.

Additional Capacity: (i) *Heavy Machine Tools.* Existing units in the country are not in a position to manufacture heavy machine tools. It is recommended Government take steps to create capacity for this purpose.

(ii) *Special Machine Tools.* The technological advancement of the country is characterised in general by a gradual changeover from the repair shop technique to manufacturing methods. With increased industrial activity during the Second Plan Period, it is expected that there will be a transformation from batch production to continuous flow production methods. This will mean the introduction of special purpose machine tools. The present stage is not considered advanced enough in the evolution of the industry for the introduction of such units. With the stress on increased production, the Committee expects greater utilisation of special purpose machine tools towards the end of the Second Plan Period. It is, therefore, recommended that Government encourage the creation of capacity for the manufacture of such units. Special purpose machine tools required will have to be designed to suit Indian conditions. As this would involve evolution of new designs and not merely copying existing ones, it may warrant foreign collaboration.

(iii) *Sheet Metal Machinery.* The Committee is of the opinion that the capacity and specialised skill for the manufacture of presses and sheet metal machinery in the country is limited. The existing units in the field are too small and the committee thinks that even after expansion under the development programme, they will not be able to meet the requirements for these machines during the Second Plan period. The Committee, recommends the establishment of an additional unit for the manufacture of presses and other sheet metal machinery.

(iv) *Wood Working Machinery.* The production of wood working machines has not been attempted in the country to any large extent. As the demand for this is reasonably large and is likely to increase during the Second Plan period, it is recommended that adequate capacity be created for this purpose.

Other Small Units: Apart from the main manufacturers, there are in the country a few units, who are classed among steel processing industries, but they are

not large enough to contribute anything substantial at present. If scope of these units is enlarged, they could make a valuable contribution to the development of this industry. They should either concentrate on the manufacture of machine tools or give it up altogether. They are now dividing their energies in different fields with the result that their output is small and uncertain. These units do make graded machine tools, but their equipment has to be modernised and staff trained for the production of modern machine tools.

Small Scale Industries: There are also a number of units in the small scale sector especially in places such as Batala, Ludhiana, Calcutta and Coimbatore. These shops, which are generally one-man shows, make ungraded machines and in the present context of shortage of machine tools sell them profitably. It will be in the interest of the country to develop the skill of these people and persuade them to make graded machine tools by giving them technical know-how and financial assistance.

TERMS OF REFERENCE NO. (5)

"To review the existing capacity to design machine tools, to survey the facilities available for training machine tool designers and suggest ways and means of helping the industry in securing training facilities at home and abroad for such staff."

Design Facilities: The greatest lacuna in the development of the machine tool industry is the absence of original design technique. The existing talent for machine tool design in the country is negligible. A beginning has been made at Machine Tool Prototype Factory, Ambarnath, to develop a section for the designing of machine tools. The Hydraulic Surface Grinder now in the prototype stage and a few other machines they propose to manufacture have been designed by them. The other unit in the public sector has now formulated plans to develop gradually its own designs. In the private sector, each factory has a design office, but the development of designs is generally not original. Many firms have tried to copy the designs of foreign manufacturers. But even this takes time. By the time the copied product is ready for the market, the original design itself becomes obsolete. Messrs. Investas have evolved an original design for a radial drill. The staff available for such design work is generally not very experienced and consequently the designs developed are none too modern. It may also be mentioned that apart from designers of machine tools, the designers of jigs, fixtures and tools are few. Many of the jigs and tools are fabricated by various shops without any formal design, and could be better designed by specialists trained for the purpose.

What has been stated regarding the facilities available for machine tool design, applies equally to training facilities for design work.

Suggested Design Training: It has been found that

the selection of designers and their training is a difficult process. It is not always that a candidate with high academic record or otherwise brilliant makes a good designer. The present practice is to select a large number of men and retain such of those found suitable for design engineering, transferring the others to wherever they are better suited. These trial and error methods have many disadvantages and should be replaced by modern scientific methods of selection. Even during the initial selection of a candidate, his aptitude for design must be tested. In the opinion of the Committee the requisite tests conducted in some of the more industrialised countries could be tried with advantage.

The training of designers must include practical experience within the shop. Any attempt at centralising this training would lead to the development of a theoretical designer, requiring additional practical 'indoctrination'. If the designer is attached to the shop, he would know the shortcomings of the plant and his designs would take into account the practical difficulties in production. As Indian talent in this particular line is at present meagre, it will be necessary to have well-trained foreign designers in each manufacturing unit to impart training.

Particular attention should be given to engage the services of only first class designers from abroad. Able Indian understudies with adequate practical experience should be attached to these men, so that they could take over eventually. At the same time, carefully selected young engineers should be sent to factories abroad for necessary design training. The 'design aspect' appears to have been missed in many schemes that are now in operation. It is suggested that Government should examine schemes with particular reference to training facilities for design.

Apart from training designers as stated above, designers of a higher calibre would be required to ensure proper growth of the Machine Tool Industry as well as the general Engineering Industry. Such a strata of capable designers can grow only in a healthy atmosphere of mutual exchange of ideas at their level and exchange of information with their counterparts in other industrialised countries. A Post-Graduate Institution where regular courses of a higher standard and short term courses for specialised designers addressed by eminent international authorities on the subject are available from time to time has to be created in the country. This could be tied up with a research programme for the Machine Tool Industry. In this connection, it is understood that proposals for the establishment of a Research Institution for Mechanical Engineering, are already under consideration of the Council of Scientific and Industrial Research. The combined programme for advanced machine tool design training at post-graduate level and machine tool research referred to above could be incor-

porated in such an institute. A liberal exchange of students and faculty should be established with the highly industrialised countries. The machine tool manufacturers should associate themselves with the institution and help by exchange of information regarding standards etc.

Terms Of Reference No. (6)

"To study the range of general purpose machine tools required by the various Departments of Government with a view to standardising to the most widely popular requirements, and to examine the feasibility of other Government Departments using similar machines and adopting them as their standards. In carrying out this examination, the Committee will take particular note of the standardisation work already completed by the Railways."

The Committee considered the fact that there existed today a demand for a large number of different sizes in almost each type of machine tool and in many cases these sizes did not differ very much from each other.

It also noted the fact that whilst the overall number of machine tools of each of the types required was relatively high, if manufacture had to be undertaken of each of the sizes now demanded, the quantities in each size would be too small to manufacture economically.

It was therefore felt that if the number of sizes in each type of machine tool was limited it would be possible to increase the batches to quantities where economic manufacture could be undertaken.

In consequence the Committee decided to appoint a Sub-Committee No. 2 to prepare such a rationalised list of machine tools by type and sizes using for their guidance the list of Standard Machine Tools prepared by the Railway Equipment Committee.

The Committee endorses the report of Sub-Committee No. 2 standardising the sizes and the types of machine tools to be manufactured in the country in the Second Plan period and since the country is switching on to the metric system the standardised sizes are given in both the British and metric systems. It is understood that the Railways will also fall in line with the metric system.

The Committee would like to point out that the list of standardised machine tools is only indicative in a general way of the sizes and number of different sizes in each type of machine tool and does not take into account overall design consideration.

It agrees with the Sub-Committee's view that the preparation of detailed specifications covering all essential dimensions would involve considerable research work and it is only after such investigation for each type and size of machine. This work, it was felt, should be undertaken as early as possible by such an authority as is being recommended to be created in the Machine Tool Board.

Table III

(c) Tool & Cutter

1. Drilling Machines:

(a) Bench type

	Capacity		Swing	Admits between centres	
	Inch	M.M.	Inch	M.M.	Inch
	10	250	24	600	
	12	300	24	600	

(i) Sensitive

1/4	6
3/8	9
1/2	12
1/2	12
3/4	20
1-1/4	32
1-3/4	45

3. Hack Saw Machines

Capacity

Inch	M.M.
6×6	150×150
9×9	225×225
12×12	300×300

(b) Pillar type Production

1-1/4	32
1-3/4	45
2-1/2	60/63
3	75

(d) Radials

Arm Length

	Inch	M.M.
(i) Sensitive	1	25
(ii) Production	1-1/4	32
	1-3/4	45
	2-1/2	60/63
	3	75

2. Grinding Machines (Single headed or double headed, with or without Twist Drill Grinding attachment):

(a) Bench type

Wheel diameter
Inch
6
8

(b) Floor type

14	350
24	630
32	800

(c) Cylindrical, Plain/Universal

Swing	Admits between centres		
Inch	M.M.	Inch	M.M.
6	150	18,36	450,900
12	300	18,36,48	450,900,
			1200
14	350	36,48,72	900,1200,
			1800
20	500	72,96,120	1800,2400,
			3000

(d) Surface

Table Sizes
Inch
18×6 450×150
24×8 600×200

(c) Tool & Cutter

Swing	Admits between centres
Inch	M.M.
10	250
12	300

Capacity

Inch	M.M.
6×6	150×150
9×9	225×225
12×12	300×300

4. Lathes

(a) (i) Capstans & Turrets

By capacity

Inch	M.M.
1/2	12
1	25
1-1/4	32
1-1/2	38
2	50

(ii) Turrets 2-1/2 52 Combination turrets
3-1/2 68 similar to Herbert No. 7 Senior or Ward No. 6

(b) Lathes : Centre (Sliding, Surfacing & Screw Cutting; Standardization is done on the basis of Swing)

Swing	Admits between centres
Inch	M.M.
10	250
12	300
16	300
20	500
28	620

5. Milling Machines

It is recommended that the standardisation should be effected in terms of traverses, weight and H.P. of the machine (Metric equivalents are given in brackets).

(a) Plain Milling Machines:

No. 1	No. 2	No. 3
Weight in lbs.	3,000	6,000
H.P.	3	7-1/2
Longitudinal traverse	20"(500)	28"(700)
Cross traverse	6"(15)	10"(250)
Vertical traverse	14"(350)	16"(400)

(b) Universal Milling Machines:

Weight in lbs.	6,200	8,200
H.P.	3	7-1/2
Longitudinal traverse	20"(500)	28"(700)
Cross traverse	6"(150)	10"(250)
Vertical traverse	14"(350)	16"(400)

(c) Vertical Milling Machines:

Weight in lbs.	6,500	8,500
H.P.	...	7-1/2
		10

Longitudinal traverse	...	28"(700)	34"(850)
Cross traverse	...	12"(300)	14"(350)
Vertical traverse	...	14"(350)	16"(400)

6. Planing Machines (Double column/open sides):

Table travel		Width	Height		
Feet	M.M.	Inch	M.M.	Inch	M.M.
6	1800	30	750	30	750
8	2400	36	900	32	800
10	3000	36	900	32	800
12	3500	48	1200	40	1100
16	4500	60	1500	50	1250
		72	1800	72	1800

7. Shaping Machines:

Stroke	
Inch	M.M.
12	300
18	450
24	600
32	800

8. Slotting Machines:	8	200
	12	300
	16	400
	20	500

Terms Of Reference No. (7)

"To suggest the machinery for laying down the standards of performance and the specifications for inspection of the final product in order to ensure that the product measures upto the required quality, and to recommend the most suitable organisation for testing and certifying the products as conforming to the prescribed quality specifications."

Sub-Committee No. 5 investigated this question and their recommendations are fully endorsed by this Committee. These recommendations are:

(a) The Indian Standards Institution is the appropriate authority for laying down standards of performance and specifications for inspection of the final product in order to ensure that the product measures upto the required quality.

(b) In cases where the Indian Standards Institution's specifications and standards of performance are not available Schlesinger's standards should be accepted.

(c) The Committee strongly emphasises the necessity of continuing the D.G.S. & D. inspection to ensure that the machine tool industry maintains the quality of its product. It is imperative that all machine tools manufactured by graded manufacturers should be inspected by a third party (at present D.G.S. & D. Inspection Wing), unless the customer specifically states that he does not require this. Government purchases will continue to be inspected by the Inspection Wing of D.G.S. & D.

The Committee commends the action of Government in offering this free inspection and strongly emphasises

the necessity for its continuance. It further recommends that Government make available inspection facilities on a larger scale than hitherto in view of the expected increase of activity in this industry.

(d) The Committee recommends that the Indian Standards Institution should extend their quality marking scheme to machine tools as early as possible. The Committee suggests that all machine tools produced for export may have either a quality certification mark from the Indian Standards Institution or the D.G.S.&D. Inspection Certificate.

(e) The Committee recommends the creation of a Central Registry for the maintenance of inspection records of machine tools and periodical inspection of some of the machine tools installed at works for a period of three years, at six-monthly intervals. This, the Committee envisages, will enable an analysis of performance data under different workshop conditions and show up the deficiencies of design, material and other factors further enabling corrective measures to be taken in future designs.

(f) In order to ensure uniformity of inspection all over the country refresher courses should be arranged for the inspection staff at appropriate places.

Terms Of Reference No. (8)

"To investigate and report on such other matters as the Committee may think fit regarding the development of the machine tool industry in India."

Machine Tool Board: The Committee has recommended a broad-based programme so that existing manufacturers could produce the machine tools in general demand in a short period. When Government accept these recommendations; the individual manufacturers may be asked to submit their phased programme for approval. For the adequate supervision of such plans and the consideration of technical details, it is recommended that Government create a Machine Tool Board. The Board which should include representatives of the manufacturers and users of machine tools has to be a small one to be effective. It should have as its chairman an engineer of high standing and eminence who is conversant with the Machine Tool Industry. This Board should amongst other things scrutinise schemes submitted, examine designs, recommended fair prices for indigenously manufactured machine tools, watch the performance of manufacturing units vis-a-vis the phased programme and recommend to Govt. action to be taken on these and allied matters. The machine tool industry suffers in general from many shortcomings including shortage of essential raw materials, technical aid, proper financing, etc. The necessity for giving top priority to this industry has already been stressed. The Committee would like to reiterate this.

Competition: The programme recommended gives a

monopolistic position to some firms which can lead to certain abuses. These can be overcome by exercising stricter control on the industry. One of the means of exercising such control would be through the Machine Tool Board.

The Committee accepts in principle that an element of competition in this industry is desirable for its healthy growth. However, as the total demand envisaged for 1960-61 for different types of machine tools is not large, a limited competition in certain machine tools like shapers, milling machines, radial drilling machines might be possible at that stage. Until then in view of the restricted demand for machine tools in different types and sizes, it is considered necessary that the manufacture for each product is allotted to only one unit—lathes being the exception. As regards lathes, where the demand is relatively large, greater competition is possible.

Banned Machines: The (late) Tariff Board which had enquired into the machine tool industry had come to certain conclusions regarding the methods by which indigenous industry could be protected. One of these was to increase the rate of import duty on the type of machine tools manufactured in the country and to restrict the import of machine tools to the extent necessary to meet the demand after taking into account indigenous production. Since a general increase in the tariff is likely to hamper the industrial growth of the country, Government thought it advisable not to raise the import duty. It was accepted that import of such types of machine tools as are manufactured in the country should be totally banned. This policy has been adhered to ever since. During the Second Five-Year Plan, it is envisaged that it will be possible to manufacture many more types of machine tools. It may be pointed out that it will not be possible for indigenous manufacturers to compete with their foreign counterparts in the initial stages mainly due to "consumer preference". It will, therefore, be necessary to afford protection to indigenous manufacturers against competition from abroad. The argument advanced earlier by the Government against general raising of import duty on machine tools continues to apply. The only course open to protect the indigenous products from similar imported products is by exercising import control. However, to safeguard the interests of consumers of machine tools, fair selling prices should be based on prices they would have to pay for a technically equivalent imported product. If necessary, certain weightage to cover development charges may be allowed. Where import of any banned category of machines has to be permitted for special reasons, a deterrent in the form of a high duty for these may be considered.

With the total ban on the import of the types of machines produced in the country, Government purchases will also be restricted to the machine tools manufactured indigenously. In this connection the Stores

Purchase Committee has already recommended a price preference upto 25%. It is recommended that this proposal be accepted in so far as it relates to machine tools.

Government Ordering Procedure: It has been brought to the notice of the Committee that generally funds are made available to Government indentors only from year to year and these funds lapse in case they are not utilised within the financial year for which they are sanctioned. This results in a rush of orders with the indigenous manufacturers, for the machine tools produced by them, at the end of the financial year. In order to enable the manufacturers to plan their production programme suitably, it is suggested that such of those indentors as cannot carry funds to the subsequent years be advised to plan their purchase programme for machine tools well in advance, instead of all approaching the manufacturers almost at the end of the financial year. It is also recommended that as the manufacture of machine tools has been allocated to specified units, there should be an approved rate contract system for these machine tools.

Standard Code: The Engineering Capacity Survey Committee had recommended that with a view to obtain statistics of the different types of machine tools required, these machine tools be classified according to a standard code. The Development Wing has already published a code of this nature and it is essential that all statistics compiled for this trade be kept in terms of that code. The licences issued by the Development Officer (Tools) already bear the code numbers of the various items imported. However, licences issued under the capital goods scheme are not classified in this manner. The Committee recommends such classification be insisted upon or in the alternative the licensing of machine tools be centralised so that satisfactory statistical data could be maintained. The Machine Tool Panel of the Engineering Capacity Survey Committee had recommended a comprehensive procedure for collecting data on machine tools imported. It is recommended that the procedure suggested be adopted without delay.

Blanket Licences: It is also noted that certain industries have been given 'blanket' licences for import of machine tools. In such cases returns as regards the exact types and specifications of machine tools are not available. It is, therefore, recommended that it be insisted at the time of the issue of such "blanket" licences that a return showing the full details of the machine tools be filed with the competent authority before they are cleared by the Customs authorities.

Steel: The Committee has investigated through Sub-Committee No. I the standardisation of the types and sizes of alloy steel required in the machine tool industry. Preliminary talks with the representative of Ministry of Defence have indicated that it will be possible to manufacture these indigenously if the requirements of the machine

tool industry are pooled and made known to them. The sizes and types as rationalised by the Sub-Committee and adopted by this Committee are given in Table IV.

Table IV
List of Standardised Steels

Selected Steels	Nearest Equivalent EN	Type of Steel	To be used instead of						Special Conditions	Remarks	
			MPF	HMT	Kirloskar	Investa	Cooper Praga				
MSF III/1	EN8/EN9	Medium Carbon	In use	C.I.	EN8	EN8	.4/.5C	EN8			
MSF XII/6	EN24	1.5% Ni Cr	—	C35*	EN24	EN24	50/60	—	C 0.4 to 0.45	*May use instead of	
MSF XII/3	EN36	3% Ni Cr	In use	C 2	—	—	Ni Cr	EN36	C 0.12 to 0.18		
MSF XIV/12	EN30	4.5 Ni Cr Limiting Conditions	XII/I*	C.3	—	—	—	—	C 0.3-0.4	*Also instead of	
MSF III/I	Upto 4" diameter & in special cases 6"		In rolled condition		Minimum economic quantities 10 tons.			Allowance 1/8" on finished size.			
Over 4" diameter	...		In forged condition					Allowance $\frac{1}{4}$ " on diameter.			
MSF XIV/6XII/3-XIV/12	Upto 6" diameter		In rolled condition		Minimum economic quantities 10 tons.			Allowance upto 2", 1/8" on finished diameter size. Over 2", $\frac{1}{4}$ " on finished diameter size (in case extra clean surface is required otherwise 1/8" will do).			
Over 6" diameter	...		In forged condition		Minimum economic quantities 10 tons.			Allowance $\frac{1}{4}$ " on finished size.			

- Sizes of rolled stock : Strips of 1/8" on diameter could be rolled, but where the quantities after bulking of orders are less than the minimum economic quantities then the nearest higher size should be ordered.
- Forgings : In case of forging—Forging drawing showing finished size and allowance required should be submitted.
- Drop Stamp Forgings: 7 to 8 lbs. stampings on 15 cwt. drop hammer. Minimum wt. of stamping 1 lb. on 7 cwt. drop stamp.

TOBACCO EXPERT COMMITTEE, 1956—REPORT

Delhi, Manager of Publications, 1957. 183p.

Chairman : Shri K. Raghu Ramaiah.

Members : Shri M. Nageswara Rao; Shri R.A. Patil; Shri Mohammad Ayub; Shri Fulabhai D. Patel; Dr. M.S. Patel; Dr. M.B. Ghatge; Dr. T.G. Shirname; Shri M. Abu Bakar.

Secretary : Shri R.N. Misra.

APPOINTMENT

The structure of the Central Excise Tariff on Tobacco was examined by the Taxation Enquiry Commission set up by the Government of India in the year 1953. That Commission recommended that the present differential tariff on unmanufactured tobacco other than flue-cured

should continue but an exhaustive review of the procedure adopted in the working of the criterion for assessment should be made by an expert committee who should examine and recommend the improvements required in the present procedure. The Government of India have accepted this recommendation and have accordingly decided to appoint an Expert Committee for this purpose. The Tobacco Expert Committee was constituted under the Ministry of Finance (Department of Revenue) vide their Resolution No. 20/8/55-CX, dated January 17, 1956.

TERMS OF REFERENCE

(1) To review generally the departmental procedures now in force for giving effect to the criterion of capability of use for the manufacture of biris laid down in items 91(5) and 91(6) of the Central Excise Tariff on Tobacco other than flue-cured, and in particular to ascertain and report:

(i) Whether the executive concessions in the application of this tariff, granted by the Government of India vide letter No. 9/16-CX(I)/51, dated July 12, 1951, addressed by the Central Board of Revenue to Collectors of Central Excise, read with the Government of India, Ministry of Finance (Revenue Division) Notification No. 23-Central Excises, dated July 14, 1951 have been fully effective in providing the relief which they were intended to give, or whether their scope has, in actual practice, been curtailed by undue rigidity in operation:

(ii) Whether these concessions have been satisfactorily operated or not in different regions of the country, with special reference to—

(a) the classifications of tobacco under the various categories laid down in the said letter;

(b) "denaturation" (that is to say, treatment of tobacco with foreign ingredients to make it unfit for the manufacture of biris) as a condition precedent to the application of concessional rates of duty;

(c) the extent to which normal movements from one market to another have been affected by the administration of the concessions.

(2) In the light of the observations of the Taxation Enquiry Commission (1953-54) on the subject, to recommend modifications, if any, which are considered necessary in the existing concessions, and in the instructions contained in the letter of the Central Board of Revenue referred to in paragraph 2(I)(i) above, having regard to the legitimate interests of tobacco trade, the security of the revenue, and smooth administration of the concessions.

(3) To consider generally the methods adopted for estimating the produce of tobacco growers for purposes of accounting and assessment, and to recommend measures for remedying the defects, if any, in the existing methods.

(4) To make any other recommendations germane to the objective of the investigation.

CONTENTS

Introductory; Main Features of Tobacco Excise; Assessment of Tobacco; Issue of Questionnaire; Working of the Capability Tariff; Suggestions; Recommendations; Estimation and Accounting of Tobacco Crop; Losses in Storage, Transit etc.; Adjudications, Appeals and Settlement of Disputes; Miscellaneous; Summary of Conclusions and Recommendations; Minute of Dissent; Appendices; Tables 1 to 12.

CONCLUSIONS AND RECOMMENDATIONS

The manner in which lists of varieties have been classified for purposes of assessment under the present scheme, is neither uniform nor scientific, and is not easy to follow. The existence of a large number of varieties, and the several physical forms in which each is consumed, the same variety being often known by different names in different areas, renders a comprehensive listing extremely difficult, and gives rise to considerable confusion and consequent assessment disputes.

The present procedure does not permit movement of lower rated tobacco, moving from one lower rated area to another, through an intervening area where the same variety is liable to assessment at the higher rate, except on payment of the differential duty. Difficulties in movement of lower rated tobacco from one Collectorate to another, where it is similarly classified, still exist in some areas.

Classification of varieties for assessment at different rates in different areas has contributed to the flow of trade in tobacco in certain varieties from higher rated to lower rated areas, has given unfair advantage to operators in certain areas over similar operators in other areas, and has been discriminatory against tobacco grown in certain areas resulting in accumulation of stocks and causing considerable dissatisfaction in contiguous areas where the same variety is classified differently. The size of the area prescribed in the Central Board of Revenue's letter No. 19/16-CXI/51 of the July 12, 1951, is arbitrary and has, in practice, not been uniformly adhered to. Malpractices and evasion have occurred by smuggling of lower rated tobacco to areas where the same variety is assessed at the higher rate.

No uniform or rational method has been followed for ascertaining the extent of actual use of multipurpose varieties consumed in bri-making, nor is any such method practicable. Most varieties are capable of use in bri-making. Disputes under the existing scheme are not capable of being objectively solved.

Alterations and additions to notified varieties have been made too frequently creating a degree of uncertainty in the tobacco trade.

There is no satisfactory method of denaturing tobacco so as to make it unusable for biris without at the

same time affecting its quality, saleability, etc. The scheme of denaturation, therefore, has not been quite effective in checking leakage of revenue. It has also caused hardship to the trade. As a result it has been availed only by a very small section of the trade.

The relief contemplated in the scheme of July, 1951, has not been fully implemented.

Chapter V

Various suggestions were considered.

A flat rate of duty for all tobacco, or a tariff based on the actual use of tobacco, is not practicable.

Neither a qualified nor a straightforward *ad valorem* tariff for unmanufactured tobacco is practicable under the existing conditions.

No scheme to relate the rate applicable to the extent to which tobacco has been processed is workable.

There is no valid reason for abandoning the principle of a higher rate of duty for biri and a lower rate for hooka, chewing, snuff etc. tobacco.

Chapter VI

No method of classification is feasible under existing conditions which will be completely objective and fair as there is no absolutely or readily recognisable standard for capability or otherwise of any specified variety for biri-making.

It would be incorrect to classify all forms of the botanical type Nicotiana Rustica as incapable of use in biri-making.

Mere storage does not render tobacco incapable of use in biri-making.

No generalisation is possible as to which varieties are wholly 'chewing types'.

The only workable classification under the existing tariff is that based on the physical form of tobacco which is readily verifiable.

(a) All forms of tobacco dust, Rawa which passes through a sieve of 1/16 in. mesh or finer, uncrushed stems, and all whole leaf varieties in the form of bundles, Judis, hanks, twists, Rassa or rope and indee, in any form, whether stripped or not, but in which the whole-leaf is intact, and broken bits of whole leaf tobacco incidental to its handling and packing, should be treated as incapable of use in biri-making and assessed at the lower rate if presented for assessment in these forms.

There is hardly any risk of biri types of tobacco being cured and presented for assessment in whole leaf form to claim assessment at the lower rate. Revenue risk by processing, after payment of duty, whole leaf types for biri-making is negligible.

(b) All broken leaf grades, and crushed stems to tobacco of size 1/16 in. to 1/4 in., should be classified as capable of use in biri-making and therefore, assessable at the higher rate.

(c) As certain inferior varieties of broken leaf forms of tobacco may be adversely affected by this method of classification for assessment, relief should be provided by permitting any type of tobacco to be converted into Rawa or dust for claiming assessment at the lower rate.

(d) Ratoon of tobacco should be classified for assessment on par with the main crop of the same tobacco in the same physical form.

Classification based on physical form is acceptable to majority interests as an improvement over the present methods and is administratively advantageous.

The proposed schemes of classification based on physical form will have a healthy effect on the tobacco industry and yield substantially higher revenue. There is, therefore, a case, on adoption of this basis of classification, for reduction of the gap between the two rates of duty, which would not only give relief to the broken leaf grades, but would further render unprofitable processing of lower rated whole leaf varieties for use in biris.

Chapter VII

Incidence of leakage of revenue is higher in sparse growing areas than in heavy growing tracts. While no accurate estimate can be made, the leakage is substantial. It is not serious in V.F.C. tobacco.

The special scheme operating in certain areas of U.P. and Rajasthan for licensing of growers by village revenue officials has proved a failure.

Reduction in non-productive workload of officers can be achieved if growers who grow tobacco only for their personal and domestic consumption are exempted from registration. The maximum size of holdings to be so exempted should depend on the average yield in the exempted area.

In other areas an improvement in control can be achieved by

- (i) timely registration of growers;
- (ii) saving avoidable labour by reduction in the scale of compulsory verification of departmental records with local revenue records;
- (iii) accurate crop survey, using measuring tapes where necessary;
- (iv) carrying out crop surveys on an increased scale;
- (v) a proper appreciation of extent of damage due to natural occurrences;
- (vi) noting crop condition on a substantially increased scale and in a uniform and fuller way; and
- (vii) devising ways of keeping the producer informed of the official estimates of crop expectations.

The tendency of curers to under-declare their cured tobacco is on the increase. Present methods of control are not fully effective in checking leakage specially in areas where jurisdictions are unmanageable. Control over curers can be improved by—

- (i) provision of portable weighing scales to the staff;
- (ii) weighment of curer's produce on an increased scale and with due regard to the size of individual's produce, the record of weighment being also witnessed;
- (iii) speedy collection of annual returns by rationalising staff with reference to workload; and
- (iv) adoption of firm methods for penalising curers who under-declare their produce.

The allowance of duty free tobacco for personal consumption of growers should be given on a uniform scale over as large an area as possible. In very sparse growing areas a more liberal scale of allowance would lead to saving in non-productive administrative costs.

No amendment of Rules 15, 16, 36 and 37 of the Central Excise Rules is necessary. The steadily worsening position of duty assessed remaining in arrear calls for determined efforts.

Unwieldy jurisdiction and insufficient preventive activity are partly responsible for inadequate control over growing and curing and should be remedied.

Transport should be provided to supervising officers in areas of high revenue potential and to primary workers with large or difficult jurisdictions for improving control and imparting confidence to the trade.

The time limit under Rule 27 should be enhanced to December 31, and provision made to authorise local officers to allow extensions in individual cases on the lines of the procedure for warehoused tobacco.

Chapter VIII

Administrative action is necessary to minimise delays in adjudication of technical cases.

Adjudication of losses in storage of varieties normally tied in bundles, jutes etc. can be done more satisfactorily if account is maintained showing both the number of jutes, bundles, etc. and weight.

Unless it is established that loss is due to pilferage, variations in weight of pressed bales of V.F.C. tobacco should be ignored. Duty, if any, on losses due to pilferage should be charged at the lowest of the several rates applicable, unless it can be established that the tobacco pilfered was used in cigarette manufacture.

Fixing uniform maximum scales for condonation of losses is impracticable in absence of common standards of quality, moisture, etc.

The suggestion of not allowing any abatement for losses in tobacco warehoused has met with widespread opposition. The present practice of condoning losses should continue but efforts should be made to improve the methods of ascertaining normal losses.

Experimental data on which adjudication of loss cases is at present done is not adequate and there is need for revision of the technique of experiments. Experimental observations should be conducted and analysed in a scientific and uniform manner in all major

tobacco warehousing centres to provide more reliable guidance. Adjudication of loss cases should be done after full proper appreciation in each case of all factors that affect losses. In a minute of dissent, three Members have advocated trial of the proposed scheme under which no abatement is to be allowed except for duty on refuse etc. destroyed.

In adjudication of transit losses, the extent of moisture added at the despatching should be taken into account, and steps should be taken to ensure that this data is available to the adjudicating officer.

Adjudication of losses in processing under bond should be based on the results of experimental observations.

Annual stock-taking results calculated on prorata weighment are not sufficiently accurate to warrant imposition of penalties for losses not condoned. While the present technique of annual stock-taking may continue, the result of stock-taking should be noted to provide data for decision after final clearance of each lot.

Chapter IX

It is unnecessary to set up separate machinery for initial decisions in technical cases.

Requiring deposit of amounts adjudged payable before consideration of an appeal is an important revenue safeguard and should remain, but the alternative of furnishing acceptable security or surety in lieu of cash deposit should be allowed.

Taxation Enquiry Commission's recommendation for setting up a Tribunal to decide revision petitions against the Collector's and the Central Board of Revenue's appellate orders should be implemented.

Advisory Committees of Collectors of Central Excise should be formed without avoidable delay. Formation of similar committees for Assistant Collectors and Superintendents may be considered after experience of working of Collector's committees.

Subordinate supervisory officers should have informal discussions of the industry's difficulties and specially invite grower's/curer's representatives at such discussions.

The Handbook of Tobacco Excise should be made available in Hindi and important regional languages.

Chapter X

There is genuine hardship arising from the State Sales (including Purchase) Tax Laws and the varying methods and practices in their administrations. Repercussions of some are likely to be unfavourable to Indian tobacco in export markets also. A solution along the lines recommended by the National Development Council will remove most of the present difficulties.

Agricultural Export Cess should be waived on samples of tobacco exported out of India.

Varying interpretations are current regarding proce-

sing operations permissible in warehouses. To remove certain obvious hardships in this matter, instructions to secure uniformity are necessary.

Where an applicant for a warehouse licence furnishes security or acceptable surety for his bond, verification of his own solvency is an avoidable and unnecessary formality and should not be necessary.

Requests for clearances for destruction of tobacco should be speedily attended to.

The date of first warehousing of tobacco should continue to be shown on covering excise documents.

Weighment Registers showing a record of all

weighments done should be maintained.

Revenue payments by cash or cheque are accepted directly at some offices of the State Bank of India. There should be similar facility at other Centres.

Stock challenges should be so done that tobacco is not damaged.

Delays in attending warehouses to take account of receipts and to supervise removals should be eliminated.

Operations permissible to curers to prepare their produce for marketing should be uniformly allowed.

Arrangements should be made urgently to ensure supply of Government stationery to Central Excise Officers.

EXPERT COMMITTEE ON THE FOREST RESEARCH INSTITUTE AND COLLEGES, DEHRADUN, 1956—REPORT

New Delhi, Ministry of Agriculture, Department of Agriculture, 1956.

Chairman : Prof. H. G. Champion.

Members : Prof. M.S. Thacker; Shri M.D. Chaturvedi;
Dr. B.P. Pal; Shri C.R. Ranganathan.

Secretary : Dy. Secretary in the Ministry dealing with
'Forests'.

APPOINTMENT

The Estimates Committee of Parliament, in its Sixth report 1953-54 relating to the Forest Research Institute and Colleges, recommended inter alia that in order to assess the actual achievements of the Institute from time to time, steps should be taken to appoint a Board of eminent scientists and representatives of the Industry to conduct periodically an "Achievement Audit" say after every 3 or 5 years. The recommendation was considered by the Central Advisory Board on Forest utilisation at its meeting held in January 1954 and although it was felt that this Board was already performing the functions referred to by the Estimates Committee, the recommendation was brought to the notice of the Executive Committee of the Board for the specific attention. The Committee supported the suggestion of the Estimates Committee and recommended that an ad-hoc Committee be set up to assess the research work done at the Forest Research Institute and Colleges periodically say after every three to five years. The Government of India accepted the recommendation and in their Resolution No. F. 19-29/54, dated January 31, 1956, appointed an Expert Committee.

TERMS OF REFERENCE

The terms of reference of the Committee were as follows:

IN INDIA 1956

(i) To review the progress of research done during the past five years;

(ii) To study the organisation of the Forest Research Institute and suggest improvement;

(iii) To study proposals for improving the quality and progress of research;

(iv) To advise on steps to be taken for ensuring efficiency in the context of investigations;

(v) To advise on steps to be taken for establishing liaison with other research institutions so as to derive advantage from their work and avoid duplication of research; and

(vi) To advise on steps to be taken to secure publicity and quick application of the result of research.

CONTENTS

Introduction; Historical, Background; Origin of Research Programmes; Review of the Work of the Research Branches; Central Services; Suggestions received from other Organisations; General Comments on the Research Work of the Institute; Organisation: (i) Existing set-up, (ii) Comments and Proposals, (iii) Liaison with State Forest Departments, Industry and Research Institutes; Staff; Accommodation and Equipment; Linkage with Education; Acknowledgements, Summary of Recommendations.

RECOMMENDATIONS

The chief recommendations of the Committee are as follows:

Replacement of the post of Director of Education by a post of Deputy President of Forest Research and Education.

Replacement of the post of Personal Assistant to the President (at present also holding charge of a Branch) by a post of Deputy President for Forest Products.

Creating of a new Section for Timber Extraction in the Forest Engineering Branch.

Organisation of a strong Section for Forest Genetics to be initiated by a well-known specialist from abroad who should train an Indian officer to succeed him.

Creation of a new Section for Forest Influences in the Silviculture Branch maintaining close liaison with soil conservation and desert research.

Creation of Wood Working Section under the Composite Wood Branch.

Re-organisation of the activities now allotted to the Minor Forest Products Branch, linking up more closely with the Biological Branches and limiting the chemical work to analysis on standard techniques.

Revision of the present allocation of duties to the Publicity and Liaison Officer and appointment of a Public Relations Officer in his place. Besides assisting in the translation of research into production, this officer should be responsible for educational and promotional work with a view to bring home to industry the importance and usefulness of the results obtained. He will also be incharge of some of the general services of the Institute like photography and printing and publication.

As a beginning, it is recommended that the Research Centre at Bangalore under the Government of Mysore should be taken over and developed as a Regional Station for utilisation in the South together with the study of spike disease, working in close liaison with the

Indian Institute of Sciences and the Central Virus Research Laboratory at Poona. Similarly the Forest College at Coimbatore should be developed as a base for regional research in the biological and silvicultural fields. On the basis of the experience gained with these Centres, similar regional stations could be developed latter in other regions such as north India, the Himalaya and the Dry West India regions.

Abolition of the cadre of Junior Research Officers of the Class II and the constitution of an integrated Class I service with a proper structure on the lines of the established Central Services with provision for officers passing from the Junior to the Senior scale automatically after a certain period of service subject to work and conduct being satisfactory. A flat rate of special pay should be attached to those holding administrative charge of full-fledged Branches.

Liberalisation of the deputation terms for Forest Officers appointed at the Institute by granting a special pay of not less than Rs. 250/- in addition to their pay in their respective State cadre and the institution of about a dozen Research Studentships of the value of Rs. 200/- per month for post-M.Sc. students and Rs. 400/- for post-D. Phil. students.

The provision of a new centrally located and properly designed building for housing the Central Library and records.

More adequate arrangements for collaboration with National Laboratories and other institutions engaged in similar scientific research, closer liaison with industries using forest products and closer co-ordination with the State Departments.

AMBAR-CHARKHA ENQUIRY COMMITTEE, 1956—REPORT

New Delhi, Ministry of Production, 1956. 489p.

Chairman : Production Secretary.

Members : Shri S.V. Aiyer; Shri H.B. Bhar; Shri Krishandas Gandhi; Shri Gyanchand; Shri A.S.E. Iyer; Shri Purushottam Kanji; Shri S.S. Khera; Shri C.J. Soneji; Shri Morarji Vaidya; Shri S.R. Vasavada.

Secretary : Shrimati P. Johari.

APPOINTMENT

The Ambar-Charkha Enquiry Committee was constituted under the Ministry of Production, Govt. of India vide their Resolution No. 12-Cot. Ind. (1)(3)/55, dated March 5, 1956.

TERMS OF REFERENCE

(a) Whether the different tools or machines comprising the Ambar Charkha set are capable of being worked with hand;

(b) Whether a normal adult can work them for eight hours, with reasonable intervals of rest, say 15 minutes after every two hours and a recess of one or two hours after four hours, without any particular feeling of fatigue;

(c) Whether the Charkha can give a production of about eight hanks of yarn, starting from the carding of cotton; or a production of about 16 hanks if the rovings are separately prepared and supplied for eight hours' effective work, by a person who has received training for

six weeks and has regularly practised on the Charkha for a further period of six weeks,

(d) Whether the tools or machines are capable of producing yarn of coarse, medium and fine counts with necessary adjustments, the range being six to 18, 18 to 32 and 32 to 48;

(e) Whether the yarn is fairly even for the purpose of weaving on handlooms i.e., it does not result in too many breakages while passing through the roads, because of variations in the counts;

(f) Whether the yarn is fairly strong for the purpose of weaving on handlooms, i.e. it does not give any particular difficulty in sizing and weaving; whether it is capable of being woven more or less as easily as the average reeled yarn available to handloom weavers and with more or less as much speed;

(g) The availability of different varieties of cotton for producing different counts of yarn and to indicate which varieties of cotton are suitable for spinning different counts with the Ambar Charkha set;

(h) What counts of cloth of specified reeds and picks could be woven on the handloom from Ambar Charkha yarn and which from mill yarn;

(i) The percentage of waste at different stages in spinning and weaving compared with similar wastage in producing mill yarn of identical counts from the same variety of cotton.

CONTENTS

Introductory (Genesis; Appointment and Terms of Reference of the Committee; Assumptions; Procedure of Enquiry); Conclusions and Recommendations (Conclusions; Recommendations); Technological Aspects (Laboratory Tests, Field Tests; Miscellaneous Tests; Data Available; The Ambar Charkha Set; Quantitative Production of Yarn; Count Range in Ambar Yarn; Quality of Yarn and its Weavability; Texture of Ambar Cloth; Availability of Cotton and Varieties of Cotton Suitable for Ambar Yarn; Wastage in Spinning and Weaving; Tables I-V); Economic Aspects (Subsidy for the Production and Distribution of Ambar Charkha; Working Capital Required for the Manufacture of Ambar Charkhas; Wages of Spinners Operating the Ambar Charkhas; Cost of Production of Yarn; Difference in the Cost of Supplying Yarn to Handloom Weavers as between Yarn Manufactured by the Ambar Charkha and Yarn Reeled by the Mills; Subsidy; Working Capital Requirements for the Production of Ambar Cloth; Cost of the Programme), The Proposal: Programme and Organisation (Acknowledgements), Appendices: Summary of the Ambar Charkha Programme of the All India Khadi and Village Industries Board Based on the Board's Pamphlet on the Subject; Questionnaire Issued by the Committee on the Technical Aspects of the Ambar Charkha; Questionnaire Issued by the Committee on the

Economic Aspects of the Ambar Charkha; Replies to the Questionnaire on Technical Aspects; Ahmedabad Textile Industry Research Association; The Director, Technological Laboratory, Central Cotton Committee, Matunga; The Principal, Central Textile Institute, Kanpur, Replies to Questionnaire on Economic Aspects: Director of Industries, West Bengal; Director of Industries, Punjab; Director of Industries, Madras; Director of Industries, Vindhya Pradesh; The All India Khadi and Village Industries Board; Ahmedabad Textile Industry's Research Association; Dr. D.R. Gadgil; Director, School of Economics, Bombay; Reports of the Laboratories on the Tests Carried Out on the Ambar Charkha, Ambar Yarn and Ambar Khadi; Interim Report of A.T.I.R.A. dated March 2, 1956; Supplement to above; Interim Summary Report of A.T.I.R.A.; Final Report of A.T.I.R.A.; Report of the Matunga Laboratory; Report of the Principal, Govt. Central Textile Institute, Kanpur; Report of the All India Khadi and Village Industries Board on the field tests carried out on the Ambar Charkha under the "Ambar Charkha Pilot Project Scheme"; Notes on Inspections made by the Committee, Results of Weaving Tests on Yarn Produced in the Parishramalaya under the Board; Pilot Project Scheme; Report of Shri S.R. Vasavada, Member of the Committee; Report of the Principal, Govt. Textile Institute, Madras; Report of the Director of Industries, PEPSU; Report of the Joint Director of Industries, Kanpur; Report of the Matunga Laboratory; Statistical Data collected by the Committee's Secretariat in respect of the Performance of 84 Parishramalayas under the Board's Pilot Project Scheme; Report on Sampling of Performance data in the Parishramalaya at Meerut; Miscellaneous Letter No. A.C.C dated May 10, 1956 addressed to the Khadi Board, seeking clarification on certain points arising out of the Ambar Programme; Letter No. E.C.R./A.C./56, dated May 17, 1956 from the Khadi Board in reply to above; Report from the Ahmedabad Textile Industry's Research Association on the Charkha produced by M/s Sunder Das Saw Mills, Bombay; Correspondence between the All India Khadi and Village Industries Board and the Office of the Textile Commissioner on the scope of the experiments conducted at A.T.I.R.A. and the Technological Laboratory of the Central Cotton Committee at Matunga; A Note on Khadi Prepared by the Secretariat of the Committee.

RECOMMENDATIONS

The experimental steps of the scheme should continue for some time longer, experiments should be on an increasing scale, in keeping with our other recommendations.

Both intensive and extensive efforts should be made for improvements in the design of the Ambar Charkha, both in the spinning unit and in the Belni. A design

competition for the spinning unit, to conform *inter alia* with Gandhiji's specifications should be organised by Government.

Much more experiment and testing should be done on productivity of yarn on the Ambar Charkha, to see if it can be more than six hanks a day, after three months of training and practice.

Charkhas should be adequately tested for quality and performance, before being used for production.

Government should immediately set up a Textile Research Centre adequately equipped and staffed, mainly devoted to decentralised spinning and weaving; with regional centres to be set up in due course.

There should be an annual review of the progress and further prospect of the scheme, with special attention to technical improvements, quality of the product, productivity, worker's earnings, subsidy element and the extent of its further needs, prices, organisation and disposal of yarn.

Growing of cotton staples suitable for the Ambar Charkha, 3/4" to 7/8", should be encouraged in all villages as part of a drive for self-sufficiency in the C.P.A. and agricultural programmes.

Experiments should be conducted to reduce wastage in spinning to the minimum and possibilities of re-using or otherwise utilising the wastage should be explored.

The Ambar Charkha should be manufactured on a fully decentralised basis, village carpenters from the Ambar areas should be trained and supplied only with the essential precision parts from a central agency; it should not be manufactured in any central factories or even in a number of manufacturing centres.

The distribution of Ambar Charkha sets should be subsidised to some extent. In the first instance, the Ambar Charkha set should be charged at full cost to the spinner to whom it is supplied, the cost being payable in easy instalments over five years, free of interest.

Working capital should be provided, free of interest, for the manufacture and supply of Ambar Charkhas, at the rate approximately of 50 per cent of the cost of the Charkha sets to be made and supplied in any one year; that is, an amount equal to six months' production.

The daily wages earned at spinning should be kept under constant watch and studied by Government.

The concept of "certification" by the Khadi Board should gradually give place to the concept of a normally decentralised village industry.

Special effort should be directed at every point, towards a target, in the first instance of bringing down the need for subsidy to a total of two annas in the rupee for Ambar cloth.

Working capital should be provided, free of interest, at 60 per cent of the annual production of Ambar cloth; i.e. Rs. 500 per Ambar Charkha set, with a six-monthly assessment of the requirements.

The Ambar programme should be integrated with the Community Project Areas and National Extension Service and run by the C.P.A. wherever a C.P.A. or N.E.S. project is sufficiently established.

Special attention should be given to training of both spinners and instructors. Training should be regularly systematic and sufficient.

At the end of the three months' training, every spinner should have an Ambar Charkha set in his home for immediate use, without break.

Training should culminate in a test and certificate of proficiency.

The full cost of training should be met by the Government.

The existing Khadi looms should also go over to Amber yarn, as part of the first phase of the programme and the traditional charkha should be progressively replaced by the Ambar Charkha.

Subject to organisational problems being solved in a practical manner, members of weavers' families should be trained and supplied with Ambar Charkhas in preference to others; at least 75 per cent of the spinners (other than the present spinners of traditional Khadi yarn) should be from weavers' families, until nearly all such families have been provided with at least one, preferably two, Ambar Charkha Sets.

The Scheme should be progressively decentralised. The Central agency (Government or the Khadi and Village Industries Board) should limit its functions to

- (a) allotment of grants, subsidies, loans;
- (b) advice and directions on technical and organisational matters;
- (c) research and testing;
- (d) a Directorate to watch and assess the progress for two years;
- (e) coordination between the decentralised agencies;
- (f) export;
- (g) certification to the extent necessary.

Government should set up a special section or a Directorate strongly staffed by persons qualified and experienced in the technical aspects, economics, statistics and administration of large scale organisation of village industries, including community project and cooperatives, to continuously and closely watch the progress of the scheme for the first two years.

The Ambar programme should be organised through cooperatives.

Government should to the maximum extent possible, obtain its requirements of cloth from Ambar cloth; Government requirements should be linked to the production project directly through the headquarters procurement organisation on the one hand and headquarters production organisation on the other.

Sample rooms may be opened under the marketing organisation in important cities and samples of items

along with information about rates and ready stocks at different production centres may be kept in the sample rooms in order to secure orders and do wholesale business.

Finishing and stocking centres for Ambar cloth will

be needed as production increases. These centres should be planned now; and the possibility of degrees of specialisation examined.

There should be adequate arrangements for quality control of yarn spun in bulk.

THE COMMITTEE ON CONSTRUCTION OF HIGH DAMS IN SEISMIC ZONES, 1956—REPORT

New Delhi, Central Water & Power Commission, 1962. viii, 189p.,
Maps & Charts

Chairman : Shri Balwant Singh Nag.

Members : Shri George Oomen; Shri P.C. Hazra;
Shri A.N. Tandon; Shri O.P. Mittal;
Shri D.P. Chatterjee.

Member-

Secretary : Shri Kehar Singh.

Reconstituted the Committee as follows:

Chairman : Shri C.L. Handa, Member (D&R), C.W.
& P. Commission.

Members : The Chief Engineer, Assam; The Special
Engineer, Flood and Flood Control, West
Bengal; Representative of Geological
Survey of India; Dr. A.N. Tandon.

Coopted

Members : The Chief Engineer, Irrigation Department,
North Bihar; The Chief Engineer,
Kosi Project, Government of Bihar; Dr.
Jai Krishna; Shri Y.K. Murthy; Shri I.P.
Kapila.

Member-

Secretary : The Superintending Engineer, Assam
Investigation Circle, C.W. & P. Commis-
sion, Gauhati.

APPOINTMENT

The Committee on Construction of High Dams in Seismic Zones was constituted under the Ministry of Irrigation & Power (Central Water & Power Commission) at the fourth meeting of the Brahmaputra River Commission held on March 7, 1956.

TERMS OF REFERENCE

To examine the advisability of constructing high dams in seismic zones.

(It was also decided that the committee should examine only those dam sites which were under investigations in Assam and West Bengal.)

CONTENTS

Foreword; Preface for the Second Edition; Back-ground Note; Meetings and Decisions; Implementation of the Decisions, Appendices A to S.

RECOMMENDATIONS

Seismically, it may be stated that the worst areas are the Shillong plateau and the north-eastern corner of the State where the Himalayan range and the Arakan Yomas meet. The seismic conditions, however, improve progressively from east to west along the Himalayas in this region.

The Committee has given consideration to individual dam sites in Assam and West Bengal in the light of the data and other informations available.

In the Kopili Basin, the Kopili dam site is considered feasible, unless some unfavourable features are revealed during the detailed investigations to render the site unsuitable. The result of the detailed investigations conducted so far seems to reveal no favourable feature at this site. The Dihing dam site in the basin has been found to be geologically unsatisfactory. The Barapani and the Killing dam sites in this basin are considered feasible provided, geologically, satisfactory foundations are available.

No dam site has been found on the Barak which can be considered suitable geologically, but seismologically the construction of a dam in this region is considered feasible.

Construction of dams in the Dihing Basin at the tentative dam site on the Noa-Dihing, the Tirap, the Namphuk and the Namchik is considered feasible, provided suitable rock foundations are available at those sites.

If foundation rocks are satisfactory on detailed explorations, the Subansiri dam site would be feasible for constructing a high dam of the height contemplated

provided due allowance is made for the high intensity of earthquake shock experienced in this region. It may, however, be pointed out that the Subansiri catchment area is liable to heavy landslide during earthquakes which may lead to rapid siltation of the reservoir.

The Jia-Bhareli dam site, for the height of the dam contemplated, has not been found suitable geologically, apart from its being in highly seismic area.

The Dihang, the Dibang and the Luhit dam sites lie in an area which was the worst affected during the 1950 earthquakes. Here, the intensity of shock had reached X of M.M. scale. There were very heavy and extensive landslides in this region during the 1950 earthquake, and the area is yielding an abnormal silt load in the rivers. Dams on these three tributaries of the Brahmaputra should be built only if these be considered imperative and if geological conditions at all permit.

The Manas dam site is situated in an area which seismologically is as active as any other along the Himalayan boundary fault region. The site has not yet been investigated geologically and the area has not even been geologically mapped. Before any large scale investigations are undertaken at this site, a careful geological reconnaissance should be carried out first and if suitable rock foundation is available at the dam site, the construction of a dam would be feasible seismically.

The Kulsu dam site lies in an area which, seismically is the worst affected in this region. In the great Assam earthquake of 1897 the destructive intensity of XI on M.M. scale was reached here and small objects were thrown up in the air. This site which has been found otherwise uneconomic, is considered not feasible on seismic considerations.

The area in West Bengal in which the Tista, the Rangit, the Lish, the Gish, the Chel and the Jaldhaka on which dams have been proposed is seismologically not as bad as the area in the eastern part of Assam, provided suitable rock foundation is available at these dam sites. Construction of dam of the height contemplated is considered feasible.

In Assam and in upper parts of Burma severe earthquakes are fairly frequent and violent. Apart from the consideration of safety to dam structures, the life of reservoir has an important bearing in taking decisions regarding the advisability of construction of dams in these regions. Landslides are common and extensive, particularly in the outer Himalayas, where soft rocks of younger formations predominate, and as a result colossal quantities of detritous and silt flow into the rivers, contributed mostly by these landslides and therefore the life of the reservoirs created in such hilly tracts would be comparatively shorter.

NETAJI INQUIRY COMMITTEE, 1956—REPORT

New Delhi, Ministry of Information and Broadcasting, 1956. 70p.,
Photographs.

Chairman : Shri Shah Nawaz Khan.

Members : Shri Suresh Chandra Bose; Shri S. N. Maitra.

APPOINTMENTS

The Netaji Inquiry Committee was constituted under the Government of India vide Notification No. F. 30 (26) FEA/55, dated April 5, 1956.

TERMS OF REFERENCE

To enquire into and to report to the Government of India

(i) on the circumstances concerning the departure of Netaji Subhas Chandra Bose from Bangkok about August 16, 1945;

(ii) his alleged death as a result of an aircraft accident; and

(iii) subsequent developments connected therewith.

CONTENTS

Introduction; Last Plans of Netaji Subhas Chandra Bose; Air Crash at Taihoku (Formosa); Death of Netaji Subhas Chandra Bose; Cremation of Netaji's Body; Netaji's Ashes: Treasure; Recommendation; Annexure: Copies of Relevant Papers; Photographs.

CONCLUSIONS

The Committee has come to the conclusion that Netaji Subhas Chandra Bose met his death in an air crash, and that the ashes now at Renkoji Temple, Tokyo, are his ashes. Rev. Mochizuki and the trustees of the Renkoji Temple have already kept the ashes for a number of years. Their services deserve to be recognised. If the ashes are taken to be genuine, Renkoji Temple cannot obviously be their final resting place. Netaji Subhas Chandra Bose died ten years ago. It is time that his ashes were brought to India with due honour,

and a memorial erected over them at a suitable place. This we recommend for the serious consideration of the Government of India. It may be mentioned in this connection that influential circles in Japan are consider-

ing putting up a memorial to Netaji in that country. If Netaji's mortal remains are honoured, and his ideals kept alive, then one could truly ask "Where is death's sting, where, grave thy victory?"

COMMITTEE TO ENQUIRE INTO THE POSITION OF SAND SUPPLIES FOR PURPOSES OF STOWING IN THE JHARIA/RANIGANJ COALFIELDS AFTER COMPLETION OF DAMS BY THE DAMODAR VALLEY CORPORATION, 1956—REPORT

New Delhi, Ministry of Production, 1956. 70p., Maps

Chairman : Shri M. L. Shome.

Members : Shri D. V. Joglekar; Shri P. C. Hazra; Shri H. J. Ajwani; Shri S. G. Krishnan; Shri G. S. Marwaha; Shri R. P. Rosser (left India, replaced by Shri A. D. C. Burbidge; Shri Burbidge also left India and replaced by Shri Ll. D. Hughes); Shri S. C. Ghosh; Shri P.H. Pandya.

Member-Secretary : Shri U. N. Jha.

APPOINTMENT

The Committee to Enquire into the Position of Sand Supplies for purposes of Stowing in the Jharia/Raniganj Coalfields after Completion of Dams by the Damodar Valley Corporation was constituted under the Ministry of Production vide their Memorandum No. 25—CI (38)/55, dated March 6, 1956 supplemented by Memorandum No. 25-CI (38)/55, dated May 8, 1956.

TERMS OF REFERENCE

(i) To examine the position of replacement of sand reserves in the Damodar, Ajoy and Barakar rivers in the areas near the Jharia and the Raniganj Coalfields, and to study the effect of the construction of the dams in the Damodar river on the replacement of sand and to report how far the present availability of sand for stowing in the Jharia and Raniganj Coalfields is likely to be affected.

(ii) To examine the extent of sand deposits which may occur at the top-end of the Panchet Hill Dam and to suggest how this sand can be utilised for stowing in the collieries in Jharia.

(iii) To report on the extent to which silt deposit will occur in the areas in the river below the Maithon and Panchet Hill Dams and whether it is likely to affect arrangements for sand getting in the Barakar areas.

(iv) To indicate the possible extent of and the problems connected with the dredging, transportation and distribution of sand to different collieries in the Jharia and Raniganj Coalfields from the top-ends of the Maithon and Panchet Dams.

CONTENTS

Introduction; Discussion of the Report of the Technical Sub-Committee; The Damodar Valley; The Damodar Valley Project; Production of Coal and Requirements of Sand for Stowing in the Jharia and Raniganj Coalfields; Reserves and Replacements of Sand in the Damodar, Barakar and Ajoy Rivers; Position of the Dams and their probable Effects on the Replacement of Sand in the Rivers; Possibility of Occurrence of Silt Deposit on Sand Beds after Construction of Dams; Consideration of the Problems of Sand Supplies in the Jharia and Raniganj Coalfields after Construction of D.V.C. Dams; Dredging, Transportation and Distribution of Sand from the Deltas at the Heads of the Reservoirs; Recommendations; Remarks by Shri H. J. Ajwani, Representative of the D.V.C.; Appendices from I to VII; two Maps.

RECOMMENDATIONS

Arrangements should be made for the excavation and transportation of about one million tons of sand annually from each of the deltas that would form at the heads of the Maithon and Panchet reservoirs for distribution to the collieries in the Dishergarh Section of the Raniganj Coalfield. We make this recommendation with a view to augment the life of the so-called "fixed" sand deposits in the Barakar and Damodar rivers downstream of the Maithon and Panchet Dams, and to feed supplies to the collieries which may be affected as a result of scour of the sand beds of the rivers downstream of these dams. These arrangements will also provide supplies of sand to

the collieries which do not possess a lease of sand beds in the adjoining areas of these rivers.

To supplement the supplies of sand in the Ondal Section of the Raniganj Coalfield from the adjoining areas of the Damodar and Ajoy rivers, arrangements should be made for collection and transportation of sand for distribution to the collieries in this section from the eight mile stretch of the Damodar river downstream of the Dishergarh Section and lying two miles upstream and six miles downstream of the railway bridge on the Adra-Asansol line. As there are no important mines situated in this reach of the Damodar, its sand reserves may be utilised for supplies to the Ondal Section. The proposal for the collection and transport of sand from the upper reach of the Durgapur Pond for supply to this section of the Raniganj Coalfield should be further examined. It may be feasible and perhaps also desirable to transport sand to collieries by a ropeway which may carry coal on its return journey for onward conveyance in barges to the consumers along the Hoogly River.

Arrangements should be made for excavation and transportation of sand from the delta that will form at the head of the Panchet Reservoir for distribution to the collieries in the Jharia Coalfields. Such arrangements will enable supplies of sand to be made to those collieries of this Coalfield which need stowing urgently for conservation but are unable to arrange for supplies of sand for want of space in the adjoining areas of the Damodar River.

For dredging sand from the deltas, sand dredging pumps, mounted on pontoons, of 300 to 350 tons per hour capacity should be installed at each of the deltas above the Maithon and Panchet Dams for the annual supply of one million tons of sand from each of them.

Experts should be appointed to make detailed surveys and investigations:

To study the merits of the two methods of transportation of sand suggested by us so as to enable final selection of one of them;

To find suitable sites on the shore of the reservoirs for the installation of receiving and loading plant and machinery;

To chalk out economical and practical lay-out of the

ropeways (i) from the shore of the reservoirs to the Dishergarh group of collieries, (ii) from the unoccupied eight mile stretch of the Damodar to the groups of collieries in the Ondal Section and (iii) from the delta above the Panchet Dam (perhaps from near Sudamadhi bridge) to the Jharia Coalfield;

To select suitable sites for central dumps in the Dishergarh Section, Ondal Section and Jharia Coalfield for later distribution to individual collieries; and

To examine the proposal for transporting sand from the upper reach of the Durgapur Pond to the Ondal Section of the Raniganj Coalfield by an aerial ropeway which, on its return journey to Durgapur, may carry coal for onward conveyance in barges to the consumers along the Hoogly River.

In order to reduce the effect of retrogression, at least for the next few years until arrangements for the supply of sand from the deltas are complete, the Damodar Valley Corporation may consider the possibility of increasing flood reserve and thereby decreasing storages in the reservoirs so as to minimise heavy flood releases.

To ensure the continued supply of sand in the Jharia Coalfield, where stowing on a very large scale has to be adopted for conservation of coking coal in the national interest, further construction of large dams in the Damodar Valley should be delayed till the stowing problem is solved. We are, however, not opposed to the construction of small dams for minor irrigation projects and soil conservation in the upper reaches.

To assess the effect of the dams on the river regime, the Damodar Valley Corporation should arrange to institute observations on the effect of retrogression downstream of the dams and collect silt samples from the bed of the rivers to check on any changes that may occur due to the dams. The observations of delta formation and also of the river upstream of the Panchet reservoir where accretion will continue for a long time, should also be done. Sand samples from the bed of the delta should be collected for classification of silt deposits.

The annual rate of replacement in the Ajoy River is not known. As this river will assume importance for the supply of sand to the Raniganj Coalfield, arrangements should be made for recording yearly replacement and increment of sand in this river.

STUDY GROUP ON EFFICIENCY AND ECONOMY IN THE IRRIGATION AND POWER SECTOR, 1956—REPORT

New Delhi, Central Water and Power Commission, 1957. 204p., II.

Chairman : Dr. K.L. Rao.

Members : Shri L.P. Bhargava; Shri S.S. Kumar; Shri S. Venkataraman; Shri E. Kolet; Shri Hari Singh.

Convener : Shri P.C. Suri.

APPOINTMENT

The Study Group on Efficiency and Economy in the Irrigation and Power Sector was constituted under the Ministry of Irrigation and Power on May 18, 1956.

TERMS OF REFERENCE

- (i) To make a study of the problems relating to efficiency and economy in the field of Irrigation and Power; and
- (ii) To consolidate and crystallise the thinking available for securing these aims and make recommendations.

CONTENTS

Part I: Report—Approach; Investigation, Designs and Estimates upto Pre-construction Stage; Letter from Chief Natural Resources Division, Planning Commission; Construction; Development of Irrigation and Power Benefits; Coordination of Knowledge and Experience and Improving the Instruments of Control and Planning; Organisation, Personnel and Attitudes; Part II: Enclosures; Part III: Conclusions and Recommendations.

CHAPTER ONE

RECOMMENDATIONS AND CONCLUSIONS

Pre-construction Stage

In Irrigation and Power field, maximum economies are dependent on long-term planning, building up of accurate realistic schedules of rates, standards, forms, etc. to service the planning authorities for the preparation of the estimates and for evaluating and promoting efficiency.

The arrangements in regard to this stage are distinctly inadequate.

Decision in regard to construction plant lay-out and purchase of machinery will also determine the best use of capital resources.

Experience in regard to drafting of tenders and agreements with the contractors should be studied by the CWPC or in the alternative by the Irrigation Departments in the States, whose experience can be coordinated by the Central Water and Power Commission. Other subjects for study may be:

(a) the relative economies in the use of small vs large contractors; and

(b) profits made by the contractors.

Each State should forthwith establish the Water Resources Investigation Unit under the charge of an Officer not lower than the rank of a Superintending Engineer with a proper compliment of the junior staff and an experienced and competent Agricultural Officer fully conversant with the soils, training conditions and agricultural practices in different areas of the State.

The detailed project reports and estimates for the Third Five-Year Plan must be completed not later than the middle of 1960.

The basin-wise water resources report and fixation of priorities for detailed investigations of projects would, therefore, be completed not later than the end of 1957.

It is for consideration if it will not be advantageous to make available to the Central Water and Power Commission the talent of retired reputed construction and design engineers for either working on individual problems or for making basic scrutiny of project reports. They would be able to give adequate time to the job. It will be, however, necessary for the reputed construction design engineers who have retired to keep themselves up-to-date. Measures to secure this end may be adopted.

Construction Stage

The assessment in regard to the present arrangements is summed up in para 8.1.

The factors responsible for economy and efficiency in the construction stage are summed up in para 8.2.

Attitudes

Basically the problem of efficiency and economy is a problem of attitudes.

The attitude of research enunciated by Mr. Curtis, President of General Motors, in para 12, is commended to all the individuals in the irrigation and power field.

The Fundamental Factors

Integration and co-operation between talents; an attitude of persistent search after efficiency and savings in costs, the development of personnel and their integrity are fundamental factors for securing efficiency and economy.

Recommendations made in this report should be continuously and persistently, followed up by concerned authorities and individuals.

CHAPTER TWO

Investigation, Designs and Estimations Upto The Pre-construction Stage

Decisions which may result in maximum economy have to be taken in the pre-construction stage and depend upon the adequacy of investigations, suitable designs and estimates based on up-to-date analysis of the rates/costs thrown up in actual practice.

The examination of projects included in the Second Plan, shows that 40% of the total allocation of Irrigation Projects in the Second Plan is for projects which are not likely to give the prescribed return.

Where a project, not likely to give the prescribed return, may be justified on the ground of regional development, the investigations should ensure that the project selected is the most economical in that region.

Arrangements For Investigations Etc.

It is of the utmost importance that the two processes, that is (i) overall planning of the river system; and (ii) survey to locate areas which need and can take irrigation economically should be attended to.

These two inter-related aims could be secured by the following arrangements:

(a) By undertaking investigations and planning of development of river systems and investigations (including minor irrigation works) through the Irrigation and Power Ministry/Central Water and Power Commission/ State Irrigation Departments; necessary high level arrangement should be added in the CWPC.

(b) Survey in regard to (ii) (including scope for dry farming) to be done with the cooperation of Agriculture Ministry/Agriculture/Revenue Department of the State Governments.

(c) Development Boards in the States (as suggested in Chapter Four) for coordinating (i) and (ii), the corresponding coordination at the Centre to be secured through Planning Commission.

The pace at which investigations have to be done, will demand immediate establishment of the organisation for investigation and the State Boards for development or irrigation in the States.

The results of the preliminary hydro-electric survey have to be confirmed and supported by reconnaissance field work.

The specialised Directorates of the Central Water and Power Commission (Power Wing) should be utilised by the State Governments in regard to system designs, Hydro and Thermal Plant installations and transmission and inter-connection studies. The scope for consultation with the CWPC may be extended to cover

(i) scrutiny of power station specifications of capacities of 10,000 KW and above, and specifications for transmission lines and sub-stations of 56KW and above;

(ii) consultation before awarding contracts for

materials and equipments included in item (i) above; and

(iii) consultation in respect of major alterations, in the designs covering item (i) above.

The survey of India must complete the 50' contour maps for the portion not covered so far by such surveys.

The estimation of irrigation potential of the country should be completed by 1958 for the whole country and the office work followed by field reconnaissance to be organised in collaboration with State Engineers and agricultural experts.

Investigation Of Schemes For The Second And The Third Plans

The investigations for schemes to be undertaken for the Third Plan and balance of schemes included in the Second Plan should be urgently completed.

There is generally a lack of uniformity and inadequacy of investigations before project reports are prepared.

Manuals For Investigations, Preparations Of Estimates And Project Reports

The services of a suitable retired Chief Engineer should be immediately obtained for getting these Manuals prepared on a high priority basis.

These Manuals will serve three aims:

(a) Preparation of project reports with a view to achieve optimum utilization of water resources commensurate with cost;

(b) Preparation of realistic estimates which are correct within a margin of 10 per cent; and

(c) Permit evaluation of experience and working in terms of rates and costs at the construction stage and for the preparation of up-to-date rates and costs schedules for further planning. To secure this aim, as recommended by the Rates and Costs Committee, a uniform list of ingredients should be adopted in estimates.

The following recommendations should be immediately implemented:

(a) The Manuals in draft form may be issued to the State Governments for compliance specially in view of the fact that Irrigation and Power Seminar has already approved the general lines on which these have to be drafted.

(b) Each State Government should send their schedule for investigation of Schemes for the Second Plan etc. to the Central Water and Power Commission. The investigations for the Schemes in the Second Plan must be completed by 1958.

(c) A basin-wise water resources report and fixation of priorities for detailed investigations and projects should be completed not later than the end of 1957, and the detailed project reports and estimates for the Third Five-Year Plan must be completed not later than the middle of 1960.

(d) Necessary vigorous follow-up may be organised at the level of the Joint Secretary/concerned Member in the Central Water and Power Commission and reports submitted to Secretary/Chairman, Central Water and Power Commission.

Planning And Designing Organisation In The States

The State Governments which do not have Planning and Designing Organisations should set them up immediately and the States which have them, should strengthen them to the extent necessary. The Planning and Designing Organisations should be manned by right type of men and enough incentives should be provided.

Realistic Long-term Schedules

In case of Thermal Power, major economies can be secured in designing and siting of Plant.

Long-term realistic schedules should be worked out to secure the best use of capital as has been done by the Central Authority for Electricity in U.K.

Arrangement For Designing Of Dams

Design of dams requires specialised knowledge. The State Governments may not be in a position to maintain full-fledged design offices with all the requisite experts. A Central Organisation like the Central Water and Power Commission should be enabled to obtain the services of personnel who acquire experience in specialised design work in the country in order to make such specialisation available to all the States, when they need.

After the States have prepared their first designs they may be discussed with the Central Organisation for securing the benefit of their coordinated knowledge and experience at the stage of planning and designs.

A book of specifications and designs should be brought out. Deviations from this should preferably be made in consultation with the Central Organisation.

All the major projects in the country costing more than Rs. 5 crores should finalise the broad designs (specification) before any work is started. Specifications of the works must be prepared along with the designs.

Specifications and designs prepared by the State Engineers, may be scrutinised by the Central Water and Power Commission.

While the CWPC should charge the State Governments for specific services like the preparation of designs, the CWPC should be in a position to give a second opinion and advice in regard to minor matters to State Governments without making any charge. The Chairman, CWPC has a certain discretion in this matter. The CWPC should analyse and classify instances of advice sought and given and frame adequate recommendations for permitting flexibility in this matter, to the Ministry of I & P.

The Central Water and Power Commission in con-

sultation with the State Chief Engineers, should prepare the Manuals giving standardised methods of designs and typical drawings of structures such as regulators and falls etc.

Typical designs on dams and power systems should be printed in a form of Manual for reference.

It is of utmost importance that the preparation of Manuals suggested in this Report is expedited. A programme of work should be immediately finalised for this purpose.

(a) The primary role of the CWPC is consultative and advisory to the Ministry of I & P, the Planning Commission and to the States. Chief Engineer in States should feel free to call upon the CWPC for technical advice. Secondly, the CWPC should, on request, be in a position to prepare workable alternatives in regard to detailed designs and take responsibility for such designs. The design wing of the CWPC may be strengthened, if necessary. A scheme should be framed to secure these aims.

(b) The CWPC should be in a position to adequately attend to the task of designing of dams and big structures which require specialised knowledge.

(c) The design experts, of adequate status, should attend to the task of designing without being involved too much in administrative work. Secondly, the design staff should be drawn from or kept in touch with the construction work.

Estimates

The following suggestions should be implemented:

(a) The State Design should collect the latest rate data of projects completed recently or under execution, so that complete break up of important rates involved in the estimates is readily available for application to the estimates of future projects.

(b) The Rates Section in the Central Water and Power Commission should be strengthened to carry further the work done by the Rates and Costs Committee. These units should be equipped to function with adequate speed.

(c) Data in regard to experience of making lump sum allocations and those items of estimate wherein generally, excesses have occurred in the past, should be regularly analysed for making realistic estimates.

(d) Provision in regard to some items such as maintenance, miscellaneous, preliminaries, establishment, T&P etc. have generally exceeded the estimated provision. The estimates for these items should be supported by experience of similar projects rather than on the individual judgement of officers preparing the estimates. This matter has been dealt with in detail in the Report of the Rates and Costs Committee.

(e) It is essential that the basis for the estimates is given in each case to the maximum extent possible.

CHAPTER THREE

Construction

Productivity, employment of minimum real resources and quality are the three main aims to be secured at the construction stage.

The Chart opposite to page 21 is an attempt to indicate the relationship between planning organisation/personnel and methods with productivity, employment of minimum real resources and quality for construction programme both in the case of departmental construction as well as construction through contractors.

Setting Up Of The Planning Organisation

After a project estimate has been sanctioned, it is imperative that a Planning Organisation should be set up two to three years in advance of the start of execution of works in full swing.

A major cause of the difficulties and infructuous expenditure in the case of River Valley Projects could have been averted, if time had been available for allowing this build up. The schedules to be prescribed for inclusion of such projects in the Plan should take this factor into account. To ensure this build up in regard to projects in the Second Five-Year Plan, is going to be a difficult proposition.

An adequate Chief Engineer is the major factor in the efficient execution of River Valley Projects. He should stay on the construction job till it is completed.

The award of a contract should be preceded by a good deal of planning by the Initial Planning Organisation (see functions in Group A in the Chart to be performed by the Initial Planning Organisation).

In obtaining tenders the plans and specifications should be definite and should give the exact requirements of item of work.

The award of a contract should be scheduled to enable the contractor to make preliminary arrangement of labour and materials so that he can start the work from the commencement of the working season.

The specifications should require the contractors to provide reasonable amenities for the labour, particularly in regard to living accommodation, pure drinking water, enough water for bathing and washing, sewage disposal, lighting arrangements in their colonies and around and medical aid.

In this connection, alternative schedules, are suggested, for the consideration of the Irrigation and Power Seminar.

	Alternative I	Alternative II
1. Works put to tender	Beginning of April	June
2. Receipt of tenders	End of May	July
3. Decision on tenders	July	August
4. Start of season	Beginning of October	

After the work has been awarded the main role of the Administration would be cooperation and vigilance i.e. (a) inspection in regard to progress of work and for quality control; (b) prompt payments to contractors; (c) ensuring adequate provisions of amenities to labour; and (d) combating corruption.

Construction Plant Layout

Before the construction of a project is started it is essential to have a Master Plan showing the plant layout of the project.

This plant layout has necessarily to be prepared by competent men, who have had considerable experience in the construction of similar projects. The Chief Engineer of the project must have a predominant voice in the choice of the plant as he is ultimately responsible for the successful execution of the project. In the preparation of this general plant layout, it is considered desirable that the Chief Engineer associate himself with two other engineers who have got real experience of the type of equipment that is to be used for construction.

It is also suggested that the CWPC should keep records of all those officers who have got special experience in heavy construction and the lines in which they can give useful advice.

The Engineers (not more than three) should be selected out of this panel.

The Plant Designs Section or the Project Designs Organisation should prepare detailed specifications and detailed working drawings for the plant layout. This section should be placed under the charge of a good structural engineer conversant with the equipment for which designs have to be prepared.

This Organisation should have a field unit also attached to it. Specialised specifications can be drawn up with the assistance of firms who deal with such equipment. It would sometimes be found useful and economical to engage specialists from firms on pay rolls for working out detailed designs and specifications; as such firms would have more specialised knowledge on the particular subject than the designs organisation.

The Central Water and Power Commission should publish the construction plant layouts adopted at various projects in the country.

The construction plant layout must be made with the idea of best utilisation of the available machines from other projects. A list of available machines must be made up-to-date by the CWPC by strengthening the P and M Directorate, if found necessary.

The machines should be transferred only in working condition and, therefore, steps should be taken to overhaul the machines and keep them in working order.

Stores

The Stores constitute the major expenditure in River Valley Projects.

In case of Major River Valley Projects, the stores management should be centralised in a separate organisation in the project itself. The arrangements for transport should also form a part of this Organisation.

In regard to stores, like iron, steel and cement which are controlled by the Government of India or which are scarce, the Purchase Organisation should plan ahead in consultation with the various works engineers in order to secure such stores in time.

Estimates in regard to the requirements of spares for each category of equipment should be made on a proper analysis of the record of spare parts consumed by the machines in use on the project. This can be done by analysing the log books and more preferably the service records of machines in the projects, maintained in the workshop and field servicing units. This analysis may enable more accurate assessment of the requirements of different types of spare parts needed during various periods of life of the machine. The Sections operating and maintaining the plant and who are responsible for making appraisal of the requirements of the spare parts should attend to this. This analysis may be pooled together by the CWPC for indicating standards to be observed in making purchase in regard to spares.

Arrangements For Making Purchases For The T & P Sector

During the construction period, a river valley project may be authorised to purchase its requirements directly, provided it has a properly organised purchase unit which should normally be strengthened by one or more experienced purchase officers deputed by the Directorate General of Supplies and Disposals. Such direct purchases should exclude items covered by the Rate/Running Contracts of the Directorate General (S & D). The Project authorities should, at the same time, establish close collaboration with the Directorate General (S & D), so that items which may be required by more than one project and can, therefore, be purchased more economically by the Directorate General (S & D) by bulking, or any other items which they consider can with advantage be dealt with by the Directorate General (S & D) should be purchased through the Central Purchase Organisation.

Scarce Materials

Regarding Cement: In view of the need to expedite small and medium projects for increasing agricultural production, the same priority as has been given to major products, should be accorded to the medium and small projects.

Regarding Iron & Steel: The arrangements in regard

to iron and steel for irrigation and power projects should be based on a basis of two years, i.e., for the emergency period. It will, therefore, be necessary to take the following steps:

(1) Devise measures for securing accurate information of the needs for two years.

(2) Analyse the demand in order to see to what extent the demand e.g. in regard to buildings, can be met by changing the specifications.

(3) Secure adequate allocation of foreign exchange for importing iron and steel.

(4) Determine and set up, in time, the arrangements for purchasing iron and steel.

The reason for non-availability of allocated quota and specific steps required to deal with the problems should be worked out. This matter should be dealt with immediately.

The arrangements made in one project with one or two Oil Companies on a long-term basis may be adopted in other projects.

The recommendations of the Rates and Costs Committee in regard to the following may be implemented:

1. Classification and codification of stores.

2. Procurements of stores, formation of a S.P.C. for projects.

3. Accounting of receipts and issues.

4. Standardisation of price of stores.

5. Stores Management.

Construction Plant & Machinery Committee

The recommendations of the Construction Plant and Machinery Committee as indicated in para 11.1 and regarding standardisation in para 11.2 should be implemented.

Accounts

A high-powered committee should be appointed in consultation with the Comptroller and Auditor General of India to re-examine the CPWD and CPWA codes in order to make them suitable for the present conditions.

The Irrigation and Power Ministry, in consultation with the Comptroller and Auditor General, should examine the extent to which the accounts procedure could be safely relaxed in order to give relief to the field engineers from office work.

The Accounting Departments in the projects are not adequately staffed or trained. These weaknesses have to be removed on a high priority basis.

Prompt Payment

The arrangements for payments should be prompt. A systematic analysis of work load involved should be made for proper distribution of load of work and for preparing a time-table to be followed for making payments. Watch should be kept on the actual working

of the arrangements through fortnightly reports which should go upto the Chief Engineer. The selection of pre-audit or post-concurrent audit method should take into account the need for prompt payments.

Cost Control/Work Studies/Cost Accounting

The construction jobs are a mixture of the systems of unique-product production and mass production. Under the unique-product production, the basic principle is organisation into homogeneous stages. This organisation is different from craft organisation. The unique-product production does not go by craft skill, but by stage skills, for which integrated teams are required. The basic principles for securing efficiency for such a system of production are:

- (a) division of work into homogeneous stages;
- (b) the systematic organisation of the work-groups for specific requirements of each stage; and
- (c) the systematic training of large number of people to do all the work required within one stage.

The system of cost control for the job, which is a mixture of unique-product and mass product production, would involve work studies and training for the unique-product part of the job and standard costing involved after work studies in relation to mass production part of the job.

The following arrangements are suggested:

Phasing: (a) In the first stage, the supervisors have to train themselves and their workers in relation to specific jobs from time to time and build up skills.

To secure the best results, the primary need, thus, will be to train the supervisory personnel in work studies (method studies, time and motion studies) and T.W.I. techniques for training workmen.

(b) Simultaneously, the accounting section should work out arrangements for relating costs to estimates. This will include preparation of a code as a part of the classification system of accounts.

(c) After the supervisory and work skills, as well as cost accounting, have been routinised, may come the stage for cost control, with a view to further improving efficiency.

The cost control unit may start as a work study-cum-cost accounting unit and develop as a cost control unit.

The skills to be required for this unit will be an experienced construction engineer with accounting statistical bent, an accountant trained in cost accounting and control; an expert in work studies in the initial stages and computers. This unit should service the top-construction executive direct and its forms and reporting system should be approved by the Chief Engineer. Its work has to be coordinated with the accounting.

At the Centre the Cost Control Cell should be able to:

- (a) Advise on the organisation of cost units.

(b) Advise on work-studies.

(c) Analyse and build up set or sets of standards on the basis of actual field experience, for control and planning.

(d) Present an assessment of:

- (i) comparison between actual costs and estimated costs;

- (ii) increase in efficiency or productivity of men and materials in the projects from time to time.

(e) Publish studies.

The experiments mentioned in para 14.1(4) may be initiated on the basis of the advice of selected engineers/cost experts, immediately by the Central Water and Power Commission.

O & M Unit

A small O & M Unit should be set up to perform the functions.

Inspection And Control

A separate organisation for inspection and quality control should be set up under the Chief Engineer to perform the functions.

Land Acquisition

It is for consideration whether the use of Section (4) of the Land Acquisition Act of 1894 and the cooperation of the Collector do not in practice secure possession of land even without setting the price and the claims.

In case of large projects, the services of a senior Revenue Officer should be obtained for land acquisition work.

Labour Relations

The basic approach and the recommendations in para 18 may be considered.

Public Cooperation

Irrigation and Flood Control programme provides a good opportunity for seeking the cooperation of the people and in this vital field of national development there is vast scope for voluntary effort. Works on which unskilled labour is entirely employed (like the canal systems), should as a rule be done by villagers themselves and not through contractors and that in each village or group of villages, the villagers should be organised into cooperatives taking up the work in their own area.

Education Of Corruption

An analysis of the opportunities for corruption in irrigation and power projects is given in para 21.1.

There is reason to believe that corruption gets well-organised.

Unlike some other spheres, corruption in this sector is almost entirely at the expense of the public exchequer.

An examination of some preliminary data has disclosed that in emergent situations, delegation of powers, without adequate inspection arrangements or spot supervision may lead to misuse of delegated authority and perhaps even lowering of quality. Straightforward attitude for meeting the emergent situations may not be developed in the staff. Instead, misuse of discretion, misreporting of facts may be indulged in the name of speed and thus provide free scope to the corrupt. There is also *prima facie* reason to believe that accounting arrangements are not adequate to the speed of execution thereby providing greater freedom to the corrupt but lesser scope for supervision and control.

In a large scale construction work, an inspecting organisation should be promptly fed with indicators for scrutiny (e.g. see item 19 in the Enclosure I) by the account and cost control organisation, etc.

Inspection to be effective should be serviced by well-organised intelligence.

In making arrangements for checks and control the aim should be to stop misuse of discretion, preserve initiative and straightforward relaxation of wasteful rule for lowering of real costs by an adequate authority promptly.

There is a good case for regular training in cost-mindedness to all the engineers engaged in construction.

A most useful instrument for controlling corruption is the sound detailed estimates prepared after adequate investigations. Arrangements should be made for securing prompt reporting of variances in regard to specifications, quantities, etc. from the estimates. These should be followed up immediately by field inspections.

Various suggestions for dealing with scope and opportunities for corruption (as analysed in para 21.1) are given for consideration in paras 21.7, 21.9 to 21.13.

To ensure that these measures operate, it is necessary that there should be: (a) will to combat; (b) will to expose; and (c) facilities and time for combating. Secondly, the strategy and organisational arrangements employed for combating corruption by prevention or by punishment, should function in a coordinated manner and with speed.

Para 21.11 and 21.12 indicate the measures for securing the will to combat corruption, the will to expose corruption and for promoting morale.

Honest men, sandwiched between dishonest superiors and dishonest subordinates are very much handicapped and may even suffer for not falling in line with the superiors. It is, therefore, necessary that measures should be devised for retaining the initiative of such honest men for combating corruption. For instance, steps should be taken to ensure that the records of honest persons are not spoiled and that promotions are ordered in a fair and just manner.

A major instigating factor in regard to corruption is

the disparities in income and standards of living between public and private sectors.

A study into the failure of contracts in order to improve drafting of contracts may be made by a team consisting of an Engineer and a Finance man. The Ministry of Irrigation and Power may sponsor the study.

CHAPTER FOUR

Development Of Irrigation And Power Benefits

Suggestions for eliminating the time lag between the availability of supplies and their utilisation are given below:

(a) Simultaneously with the establishment of arrangement for overall planning of the river system, a survey in regard to areas which need and can take irrigation should be organised by the Revenue Agricultural Departments of the State Governments.

(b) Development of land should be planned in advance and form an integral part of the Project Report. The report should include an assessment of the steps to be taken for timely development of the steps e.g., setting up of N.E. Organisation and demonstration centres ahead of availability of water, financial assistance, agricultural implements, fertilisers, livestock and seeds. This should be a condition precedent to the acceptance of the project by the Planning Commission. It is recommended that the proposed Manual on "Preparation of Project Reports" should contain a Chapter dealing with this aspect.

(c) Phasing of construction should promote maximum use of water even during construction.

For purpose of (a) and (b) i.e. for ensuring timely utilisation, a Development Board consisting of representatives of Irrigation, Revenue and Agricultural Departments may be set up in each State.

(d) It may be advisable to offer suitable inducements for one or two seasons to educate the peasant for changing over from dry to wet cultivation.

Suggestions for securing maximum irrigation out of water supplied are given in paras 2 and 3.

Development Of Power Benefits

The various causes leading to delays in utilisation of power supplies are given in para 5.

Suggestions for ensuring efficient and economical generation and utilization of power are given in para 6 and include:

Suggestions for obtaining adequate information of requirements, vide para 6(a);

Timely information in regard to availability, vide para 6(c);

Facilities or utilization, vide para 6(b) and (d);

Standardization, vide paras 6(e); and

Coordinated programming in regard to generation and receipt of power, vide para 6(f).

Coordinated Development Power

In order to secure coordinated development between the States in each zone, it is recommended that a Co-ordination Committee consisting of the Chief Engineers for Power, a representative of the Power Wing of the Central Water and Power Commission and Adviser (Programme Administration concerned with the particular zone), should be set up, to: (i) get studies made in regard to coordinated development of power within the zone; (ii) suggest legislative or administrative measures required for bringing about coordinated development; and (iii) advise and other questions which usually arise when power is obtained by one State from another.

A start might be made for constituting a grid in the south where the conditions are favourable. The constitution of State Electricity Boards would facilitate the constitution of such grids which might ultimately be integrated into a national grid.

Maintenance Of Efficiency

The Central Electricity Authority has been requested to make arrangements for assessing the efficiency of electricity supply undertakings owned by the public sector from time to time.

CHAPTER FIVE

Coordination Of Knowledge And Experience And Improving The Instruments Of Control And Planning

The research work done in regard to irrigation should be analysed and reviewed. The Member (Research) CWPC should send a Report on the subject.

The research work on problems of general applicability is not being tackled due to lack of adequate funds and personnel.

There seems to be some duplication of work in different research stations.

Central Water And Power Commission

The primary function of the Central Water and Power Commission is to coordinate knowledge, experience and research in regard to irrigation and power in the country and the rest of the world for securing technical efficiency. It has to function as a sort of staff organisation concerned primarily with setting up of standards in regard to investigation, designing, estimation, preparation of project reports, rates and costs and various matters connected with machinery, equipment, etc. and keep these standards in continuous review on the basis of actual experience in the field.

The adequate discharge of these functions would depend on (a) cooperation of Project Authorities/State Governments etc., (b) prompt arrangement for analysis, extension and application of new ideas.

There should be regular arrangement in the Central Water and Power Commission to keep the work of

these Committees (Construction Plant & Machinery Committee and Rates & Costs Committee) up-to-date as well as fill up the gaps which can only be filled up by a proper system of reporting and special studies.

The material for the preparation of completion reports (which should highlight new methods of design and construction resulting in increased technical efficiency and economy), should be prepared side by side, as the construction proceeds.

The completion reports should be ready soon after the completion of projects.

One way to secure this object is to introduce in the progress report a section where special development (including the advice given by Consultants/Experts) and experience are reported, say, every quarter or six months.

All the Project Authorities should report to the Central Water and Power Commission for information any new features in design which may have been developed during process of designing particular structures.

The Central Water and Power Commission should also coordinate experience in regard to organisation and methods relating to stores and workshops.

Evaluation Of Progress And Efficiency

The Control Boards should arrange to develop arrangements in regard to preparation of detailed realistic schedules, cost accounting, cost control and standards as instruments of control without day-to-day interference and for securing increased efficiency and economy, if necessary with the assistance of the Central Water and Power Commission.

These arrangements should function as an integrated mechanism which services all the executive levels down to the foreman, as well as, the management levels, i.e. upto the policy makers.

Progress Report

The following additional information should be given in the progress reports:

- (i) Availability of construction material.
- (ii) Value of stores in hand, whether it is more than the requirements of the projects, and steps taken.
- (iii) Whether sanction to estimates is being received in time or whether any work is held up for want of sanction.
- (iv) Whether timely payments are made to the contractors (details about the prescribed schedules may be given).
- (v) The number of machines working, number at site as stand-by and number in the stores (to give an indication as to whether large number of machinery is being kept in store or idle).
- (vi) Results of cost control studies, detailed comparison of the estimates with the actuals and the advice given by consultants/experts (at suitable intervals).

We feel that the Progress Report should further reflect conscious drive for efficiency and economy (i.e., new methods under application or proved methods for securing efficiency and economy).

CHAPTER SIX

Task For The Third Five-Year Plan

As a result of the discussions on this Chapter, Planning Commission has issued a letter (Enclosure 1) to the State Governments, indicating that the size of the Irrigation and Power Sector in the Third Plan may exceed Rs. 1,500 crores.

Targets For Investigation

The arrangements for investigations for projects should ensure availability of fully investigated schemes for irrigation and power worth Rs. 2,000 crores by the fourth year of the Second Plan in order to permit adequate preparation of the Third Plan and for obtaining the best value for capital resources. This implies preliminary investigations of schemes worth Rs 3,000 crores at least.

According to the Technical Committee on Irrigation and Power, the present condition in most States is that the existing organisation is fully utilised on the execution of various sanctioned schemes with the result that the essential work of investigations and survey is being neglected.

Some of the States are reluctant to invest on investigation of schemes not to be taken up immediately. Unless this attitude is changed and immediate action taken, it will be physically impossible to carry out this basic task, on which primarily depends the best use of our capital.

Even now, perhaps we may be behind time by three to four years.

Recommendations

(a) The CWPC should examine the implications of the task in regard to investigations in terms of organisation, personnel and finances and report in three months.

(b) State Governments should be requested to send their programme and make arrangements for investigation of schemes to be implemented in the Second Plan urgently. Funds, as loans, required for investigation of schemes have been provided for in the Second Five-Year Plan.

(c) A preliminary discussion in regard to organisation for investigation of schemes for the Third Five-Year Plan should be held on the basis of a paper to be prepared by the CWPC at the Symposium of C.B.I. Annual meeting at Bombay.

The Symposium should specifically examine the suggestion made by the Planning Commission that special arrangements for planning, investigation and preparation of project reports may be immediately made.

Organisation For The I & P Sector

Arrangements at various levels for planning and execution in the Irrigation and Power Sector are given in para 3.

List of issues in regard to organisation are listed in para 4.

Delegation Of Powers

The system of delegation of powers combined with the emergency procedure, vide Enclosure 2, adopted by the Bhakra Control Board to the Chief Engineer may be adequate for the scale and the speed of operations, provided limit is placed on the time to be consumed by the emergency procedure.

Suitable Form Of Organisation For Inter-State Projects

In balance, the Control Board (subject to observations in Chapter Six) is a better arrangement than Corporation in regard to an Organisation for construction, maintenance and utilization of benefits of Inter-State River Valley Projects.

On the other hand, we appreciate need for a statutory organisation for maintenance of the dam etc., and for regulating the distribution of benefits in the case of inter-State projects under one man, with adequate staff. The person incharge could be placed under the control of a Committee representing the State Governments and may be the Centre also.

A representative of the CWPC at the member-level should be a member of each Control Board. It is also necessary that a representative of the Irrigation and Power Ministry should be on the Control Board.

In the ease of multi-purpose projects the Chief Engineer for power, who has often to secure decisions of Control Board and also to contribute to the decision-making process in the Control Boards, should be a member of the Control Boards alongwith the Chief Engineer for Irrigation.

Relationship Between The Administrator And The Chief Engineer

The relationship in regard to the operation level should be determined on the following basis:

"Where the decision-making process and the staff are mainly or predominantly technical, the head of the organisation should be a technical person, experienced in organisation.

"He should be assisted with administrative personnel for performing administrative functions. Where, however, the administrative functions e.g., rehabilitation of displaced persons etc. are of a size and complexity demanding a high level Administrator, the Chief Engineer and the Administrator should function as colleagues serving a common aim."

The responsibilities of delegation of power to the

General Manager, Bhakra, should be regarded as a model to be adjusted to suit local conditions.

The Secretary of the Control Board should preferably be a whole-time person and may be appointed in consultation with the Board.

Control Boards

Structurally the Control Boards being high-powered and high level bodies of part-time busy members may function as an overseeing body. Its membership leaves little scope for supervision of its work. Some of the Boards have dealt with the question of delays by prescribing emergency procedures. They have been able to provide initiative occasionally in addition to coordination, on the strength of their experience gained by them in other Control Boards.

On the other hand, we feel that the problem of the scrutiny of estimates, construction plant layout and phasing placed before the Control Boards for sanction has to be further considered.

There is also need for personal contact with the work in the field.

Recommendations

Scrutiny Of Estimates Submitted To The Control Boards

The scrutiny of the estimates should be concerned with (a) designs; (b) rates; and (c) inclusion of inappropriate items. It was suggested that if the CWPC could be consulted in regard to specification and design, scrutiny in regard to designs at a later stage would not involve delay.

It will be useful to have a Standing Committee of the Control Board which could examine in detail the estimates submitted to them and report in time for the next meeting of the Control Board.

Being high level, Control Boards should equip themselves for self criticism in regard to their own working.

It is suggested that the Ministry of I & P may organise a study of (a) the manner in which the Control Boards have performed their functions; (b) exercise their powers; and (c) the manner in which they have dealt at their level with specific problems and factors (sanction of estimates, corruption, quality control, evaluation of work, arrangements for scrutiny of estimates, speed of functioning, prompt payments to contractors, building up of personnel, team spirit and so on) essential for securing efficiency and economy. Another practical question for consideration is: How many Control Boards should be serviced by a single officer? In the first instance, this study may be only fact-finding and analytical in its scope.

Committee On Plan Projects

The examination of construction project may be concerned with (a) planning; (b) organisation and personnel;

(e) bottlenecks and delays; (d) organised attention to productivity; and (c) quality control. Detailed examination through specialists could also be organised in regard to working of the individual departments or aspects of the project administration. It will be, therefore, essential for the teams to be assisted by specialised personnel. Panels of such experts should be maintained.

In the first instance, we recommend, study and not inspection of three types of projects: (1) projects in a preliminary stage, e.g. Nagarjunasagar, Koyna and Rihand; (2) projects in somewhat advanced stage of construction, e.g. Chambal and Bhakra Dam; and (3) projects nearing completion like Hirakud and Maithon. The aim of this study should be to work out a paper in consultation with the Chief Engineers in regard to what to inspect and how to inspect. The team should, in particular, study the methods and organisational arrangements evolved by the Chief Engineers for assessment, reporting as well as continuous improvement in the working of organisation and methods. The study should concentrate on positive aspects and may not deal with the past, in the first instance, except to draw conclusion for improving organisation and methods in the future.

After this preliminary study is done, many inspection teams may be organised.

Such teams may be set up by the Control Board. The terms of reference and the membership of the teams may be put up to the Committee on Plan Projects for approval.

Inspections should not be made for, say, more than once in two years.

Quality Control

A separate set of officers, solely employed on inspections and quality control, should be appointed. These arrangements (strength, qualifications of personnel, equipment and the manner of functioning, procedures for record and follow-up action) should be prescribed by a Quality Control Manual to be prepared by the CWPC. This unit should function under the Chief Engineer of the project.

A Quality Control Unit at the Centre should be set up to collect information from different projects, analyse and bring important observations to the notice of the Chief Engineers concerned.

It is also for consideration if a Quality Control Squad should be set up in the CWPC to supplement the quality control efforts and the State Organisations in regard to medium projects at the request of the State Governments.

Coordination Board Of Ministers

The Coordination Board of Ministers should meet more frequently and the Board should authorise the CWPC to follow-up the recommendations on its behalf.

Irrigation And Power Seminar

A suitable drill in regard to the actual functioning of the Seminars should be worked out for making adequate use of time and the talent brought together.

Committee On Plan Projects

In regard to Irrigation and Power Sector, the implementation of the term of Reference No. 1 (of the Committee on Plan Projects) should be done through the Ministry of Irrigation and Power/Control Boards.

In regard to Function Nos. 2 and 3 the Committee on Plan Projects may ensure that the arrangements are installed where they are lacking and where necessary, provide support and sanction any improvement to existing arrangements.

The CWPC/The Ministry of I&P/Planning Commission

The issues listed in paras 4(d) & 4(e) are being dealt with separately.

Personnel: Forward Man-Power Planning

The Ministry of Irrigation and Power through the CWPC should attend to forward man-power planning as recommended in paras 16.1 to 16.4.

Provision of Experienced/Quality Engineering Personnel

Cooperative arrangements suggested for obtaining or building up personnel with Governments which have established cadres by adding supernumerary posts at the necessary levels at the cost of the needy party are given in para 17.3.

Information in regard to Superintending Engineers and the work they are engaged on, from year to year may be maintained in order to deploy them in the interest of the country as a whole under the auspices of the Coordinating Board of Ministers.

The problem of provision of experienced personnel for training and research institutions deserves to be attended to immediately.

The need for regular and persistent build up of personnel, if they have to succeed as teachers seem to be established. For efficient teaching, the ideal combination may be a theorist with adequate field experience and specialisation in one branch of that field.

There should be a joint cadre for the executive side and the teachers etc., who are not required to stay for continuity or specialisation.

In order to attract right quality of personnel for research, the pay scale at the lowest level should be made higher than the scale provided for executive work through further promotions should be made on selection basis after the recruit has been given an opportunity to show himself up as a fellow after some years' work.

Attitudes

An illustrative sample of generally felt attitude is given in para 18.1.

These attitudes are, in part, a heritage of attitudes of static regulatory administration, in part of defensive inhibitions of a specialist who may not always appreciate the new complexities which he has to manage and the need to keep himself under constant reorientation. A Chief Engineer is not a specialist merely, he is an organiser of a complex production assignment. The same is the ease with the finance man.

The finance man has to function with a production cost outlook rather than audit outlook.

The engineer has to be trained to be cost-minded and should learn modern methods of management.

The administrator has got to appreciate his role as an integrator of talents.

Practically all have to learn the problems of handling personnel and labour.

That each public servant must spend Government funds as prudently as he would his own, is a fundamental principle for constant application and guidance.

Integration of and cooperation between talents, an attitude of persistent search after efficiency and savings in cost and the development of personnel, are fundamental factors for securing efficiency and economy.

Recommendations

Engineers at all levels must be given courses in cost control, industrial engineering and the senior amongst the profession should reorientate themselves in the methods of management, through seminars, personal visits, contacts and selected reading.

Training in industrial management should be a part of the syllabus of graduate courses.

Experienced middle level finance men with administrative experience be sent to large-scale projects in the country and even to large-scale industrial-cum-commercial organisations abroad to see in actual practice the approach and methods functioning on large-scale enterprises with speed. No successful enterprise, whether in the public or private sector, can afford to ignore the arrangement for financial control. Yet, in large-scale enterprise outside the country, the management have worked out a balance between delegation and supervision and control which permits over 90% of decision making at the operational level.

The Ministry of Irrigation and Power has been equipped with internal yet independent financial advice as a first step towards the adoption of U.K. arrangements (which include a device for obtaining assessment of finance-mindedness of the Administrative Secretary before the Prime Minister). We feel that the arrangement as in U.K. should be fully adopted as soon as practicable.

A Chief Accounts Officer, responsible to the Chief Engineer, should be provided for maintenance of accounts and for giving internal financial advice to the Chief Engineer.

The Finance-Secretary of the State and the representative of the Ministry of Finance on the Control Board

should serve as financial advisers to the Control Boards. In order to secure adequate attention, the number of Joint Secretaries in the Ministry of Finance concerned with River Valley Projects may be increased. It may also be necessary to strengthen the State Finance Departments.

FINANCE COMMISSION, 1956—REPORT

New Delhi, Ministry of Finance, 1958. 215p.

Chairman : Shri K. Santhanam.

Members : Shri Ujjal Singh; Shri L.S. Misra; Shri M.V. Rangachari; Dr. B.N. Ganguli.

Secretary : Shri H.B. Bhar.

APPOINTMENT

The Finance Commission was set up under article 280 of the constitution by an Order of the President Vide No. SRO 1285, dated June 1, 1956.

TERMS OF REFERENCE

The Commission shall, in addition to making recommendations as to the matters specified in sub-clauses (a) to (c) of clause (3) of article 280, make recommendations as to the following matters, namely:

(a) The sums which may be prescribed under article 273 as grants-in-aid of the revenues of the States of Assam, Bihar, Orissa and West Bengal, in lieu of assignment of any share of the net proceeds in each year of export duty on jute and jute products to those States;

(b) The States which are in need of assistance by way of grants-in-aid of the revenues of those States under article 275, and the sums to be paid to those States, having regard, among other considerations, to

(i) the requirements of the Second Five-Year Plan, and

(ii) the efforts made by those States to raise additional revenue from the sources available to them;

(c) The principles which should govern the distribution under article 269 of the net proceeds in any financial year of estate duty in respect of property other than agricultural land, levied by the Government of India in the States within which such duty is leviable; and

(d) The modifications, if any, in the rates of interest and the terms of repayment of the loans made to the various States by the Government of India between August 15, 1947 and March 31, 1956.

Additional References

The Government of India, in consultation with the State Governments, have decided that an additional duty of excise should be levied on mill-made textiles, sugar and tobacco, including manufactured tobacco, in replacement of the sales taxes now levied by the State Governments, the net proceeds being distributed among the States, subject to the present income derived by each of the States being assured to it. Necessary legislation will be promoted shortly for the levy, by the Centre, of this additional duty. In this connection the President has been pleased to decide that the Finance Commission should be requested to make recommendations to him as to the principles which should govern the distribution of the net proceeds of this additional duty among the States and the amounts which should be assured to the States as the income now derived by them from the levy of sales taxes on these commodities.

The President has also been pleased to decide that the Commission should be requested to make recommendations to him as to the principles which should govern the distribution, under article 269 of the Constitution, of the net proceeds in any financial year of the tax on railway fares proposed to be levied by the Railway Passenger Fares Bill, 1957, introduced in the Lok Sabha on May, 15, 1957.

CONTENTS

Introductory; First and Second Commissions; Planning and Finance Commissions; Constitutional Aspects; Recent Trends in Federal Finance; Principles of Grants-in-aid; Review of State Finances; Assessment of Needs of States; Distribution of Income-Tax; Division of Union Excises, Grants-in-aid in lieu of Jute Export Duty; Grants-in-aid of Revenues; Distribution of Estate Duty; Union Loans to States; Distribution of Additional Duties of Excise; Distribution of Tax on Railway Fares;

Miscellaneous: Recommendations; Conclusion; Acknowledgements; Appendices from I to XIII.

RECOMMENDATIONS

Our recommendations to the President are set out below:

Under article 270 of the Constitution—

(a) The percentage of the net proceeds in any financial year of taxes on income other than agricultural income, except in so far as those proceeds represent proceeds attributable to Union Territories or to taxes payable in respect of Union emoluments to be assigned to the States be 60 (sixty);

(b) The percentage of the net proceeds of taxes on income which shall be deemed to represent proceeds attributable to Union Territories be 1 (one); and

(c) The percentage of the net proceeds assigned to the States be distributed among those States as follows:

State	Percentage
Andhra Pradesh	8·12
Assam	2·44
Bihar	9·94
Bombay	15·97
Kerala	3·64
Madhya Pradesh	6·72
Madras	8·40
Mysore	5·14
Orissa	3·73
Punjab	4·24
Rajasthan	4·09
Uttar Pradesh	16·36
West Bengal	10·08
Jammu and Kashmir	1·13

Under article 272 of the Constitution, a sum equal to 25 (twenty-five) per cent of the net proceeds of the Union duties of excise on sugar, matches, tobacco (including manufactured tobacco), vegetable products, coffee, tea, paper and vegetable non-essential oils, be paid out of the Consolidated Fund of India to the States and distributed among them as follows:

State	Percentage
Andhra Pradesh	9·38
Assam	3·46
Bihar	10·57
Bombay	12·17
Kerala	3·84
Madhya Pradesh	7·46
Madras	7·56
Mysore	6·52
Orissa	4·46
Punjab	4·59
Rajasthan	4·71
Uttar Pradesh	15·94
West Bengal	7·59
Jammu and Kashmir	1·75

Under article 273 of the Constitution, the following sums be prescribed as grants-in-aid of the revenues of the States of Assam, Bihar, Orissa and West Bengal, in lieu of assignment of any share of the net proceeds of the export duty on jute and jute products, in each of the three financial years beginning on April 1, 1957:

(Rupees in lakhs)

Assam	75·00
Bihar	72·31
Orissa	15·00
West Bengal	152·69

Under the substantive portion of article 275(1) of the Constitution, in each of the five financial years beginning on April 1, 1957, the sums shown in the table below be charged on the Consolidated Fund of India as grants-in-aid of the revenues of the States mentioned against them:

State	1957-58	1958-59	1959-60	1960-61	1961-62
(Rupees in crores)					
Andhra					
Pradesh	4·00	4·00	4·00	4·00	4·00
Assam	3·75	3·75	3·75	4·50	4·50
Bihar	3·50	3·50	3·50	4·25	4·25
Kerala	1·75	1·75	1·75	1·75	1·75
Madhya					
Pradesh	3·00	3·00	3·00	3·00	3·00
Mysore	6·00	6·00	6·00	6·00	6·00
Orissa	3·25	3·25	3·25	3·50	3·50
Punjab	2·25	2·25	2·25	2·25	2·25
Rajasthan	2·50	2·50	2·50	2·50	2·50
West Bengal	3·25	3·25	3·25	4·75	4·75
Jammu and					
Kashmir	3·00	3·00	3·00	3·00	3·00
Total	36·25	36·25	36·25	39·50	39·50

With effect from April 1, 1957:

(1) Out of the net proceeds in each financial year of estate duty in respect of property other than agricultural land, a sum equal to 1 (one) per cent be retained by the Union as proceeds attributable to Union territories:

(2) The balance of the net proceeds be apportioned between immovable property and other property in the ratio of the gross value of all such properties brought into assessment in that year;

(3) The sum thus apportioned to immovable property be distributed among the States in proportion to the gross value of the immovable property located in each State; and

(4) The sum apportioned to property other than immovable property be distributed among the States as follows:

State	Percentage
Andhra Pradesh	8·76
Assam	2·53

Bihar	10.86
Bombay	13.52
Kerala	3.79
Madhya Pradesh	7.30
Madras	8.40
Mysore	5.43
Orissa	4.10
Punjab	4.52
Rajasthan	4.47
Uttar Pradesh	17.71
West Bengal	7.37
Jammu and Kashmir	1.24

In respect of the period prior to April 1, 1957, the distribution already made be legally ratified.

In regard to the loans made by the Government of India to the States between August 15, 1947 and March 31, 1956:

(a) With effect from April 1, 1957, in respect of loans made to the States for the rehabilitation of displaced persons and re-lent by them, the States be allowed to pay to the Union only the amounts of principal and interest collected, including arrears, if any;

(b) No modification be made in the rate of interest or terms of repayment of interest-free loans; and

(c) Of the remaining loans—

(i) The balances on March 31, 1957 of all loans carrying interest at three per cent or more per annum and repayable on or after April 1, 1977, be considered into one single loan at 3 (three) per cent per annum repayable on March 31, 1987;

(ii) The balances on March 31, 1957 of all loans carrying interest at 3 (three) per cent or more per annum and repayable on or before March 31, 1977 be consolidated into one single loan at 3 (three) per cent per annum repayable on March 31, 1972;

(iii) The balances on March 31, 1957 of all loans carrying interest at less than three per cent per annum and repayable on or after April 1, 1977 be consolidated into one single loan at 2½ (two-and-a-half) per cent per annum repayable on March 31, 1987; and

(iv) The balances on March 31, 1957 of all loans carrying interest at less than 3 (three) per cent per annum repayable on or before March 31, 1977 be consolidated into one single loan at 2½ (two-and-a-half) per cent per annum repayable on March 31, 1972.

Out of the net proceeds of the additional duties of excise levied in replacement of sales taxes on mill-made textiles, sugar and tobacco (including manufactured tobacco)—

If each of the additional duties is to be distributed separately—

(1) A sum equal to 1 (one) per cent of the net proceeds of each additional duty be retained by the Union in respect of Union Territories;

(2) A sum equal to 1½ (one-and-one-quarter) per

cent of the net proceeds of each additional duty be paid to the State of Jammu and Kashmir; and

(3) A sum equal to the balance of the net proceeds of each additional duty, i.e., after deduction of the sums mentioned in sub-paragraphs (1) and (2) above, be distributed as follows:

(a) The sums mentioned below representing the present income of the States on account of sales taxes, by whatever name called, on the three commodities be first paid to them.

State	Mill-made	Sugar	Tobacco
	textiles	(Rupees in lakhs)	
Andhra Pradesh	120	40	75
Assam	40	15	30
Bihar	80	30	20
Bombay	600	245	115
Kerala	38	20	37
Madhya Pradesh	83	40	32
Madras	168	60	57
Mysore	48	25	27
Orissa	50	20	15
Punjab	95	50	30
Rajasthan	50	25	15
Uttar Pradesh	400	112	63
West Bengal	240	36	40
Total	1976	718	556

(b) The remaining sum, if any, be distributed as follows:

State	Percentages		
	Mill-made	Sugar	Tobacco
	textiles		
Andhra Pradesh	7.38	6.65	1.47
Assam	2.72	2.55	2.98
Bihar	11.19	8.20	8.90
Bombay	16.46	20.17	17.41
Kerala	3.10	3.03	3.43
Madhya Pradesh	6.97	7.67	7.10
Madras	7.26	7.43	9.53
Mysore	4.98	5.13	5.58
Orissa	3.32	2.87	3.21
Punjab	5.56	7.21	4.36
Rajasthan	4.36	4.81	3.59
Uttar Pradesh	18.19	15.63	16.13
West Bengal	8.51	8.65	7.31

(4) If the total net proceeds of the three additional duties taken together are to be distributed:

(i) A sum equal to 1 (one) per cent of the net proceeds be retained by the Union in respect of Union Territories;

(ii) A sum equal to 1½(one-and-one-quarter) per cent of the net proceeds be paid to the State of Jammu and Kashmir; and

(iii) A sum equal to the balance of the net proceeds, i.e., after deduction of the sums mentioned in subparagraphs (i) and (ii) above, be distributed as follows:

(a) The sums mentioned below, representing the present income of the States on account of sales taxes, by whatever name called, on the three commodities be first paid to them:

State	Rupees in lakhs
Andhra Pradesh	235
Assam	85
Bihar	130
Bombay	960
Kerala	95
Madhya Pradesh	155
Madras	285
Mysore	100
Orissa	85
Punjab	175
Rajasthan	90
Uttar Pradesh	575
West Bengal	280
Total	3250

(b) The remainder, if any, of the net proceeds be distributed as follows:

State	Percentage
Andhra Pradesh	7·81
Assam	2·73
Bihar	10·04
Bombay	17·52
Kerala	3·15
Madhya Pradesh	7·16
Madras	7·74
Mysore	5·13
Orissa	3·20
Punjab	5·71
Rajasthan	4·32
Uttar Pradesh	17·18
West Bengal	8·31

(5) (a) Out of the net proceeds in each financial year of the tax on railway fares a sum equal to $\frac{1}{4}$ (one-quarter) per cent be retained by the Union as proceeds attributable to Union Territories; and

(b) the balance of the net proceeds of the tax on railway fares be distributed among the States as follows:

State	Percentage
Andhra Pradesh	8·86
Assam	2·71
Bihar	9·39
Bombay	16·28
Kerala	1·81

Madhya Pradesh	8·31
Madras	6·46
Mysore	4·45
Orissa	1·78
Punjab	8·11
Rajasthan	6·77
Uttar Pradesh	18·76
West Bengal	6·31

Conclusion

The scheme of devolution recommended by us is an integrated scheme. It takes into account the needs of the States with due regard to the ability of the Union, with its immense responsibilities particularly for defence and national development, to transfer resources to the States. It maintains a balance between devolution by transfer of shares of taxes and devolution by fixed grants-in-aid. We would like to emphasize that any modification of individual recommendations will upset this balance.

We recommend that the decisions taken by the Government of India on this report be given effect to from April 1, 1957, and all payments made on the basis of the interim report submitted by us be readjusted against the final payments. This will be without prejudice to the settlement of past arrears, if any.

Our scheme provides for a devolution of about Rs. 140 crores a year against an average sum of Rs. 93 crores received by the States under the last Commission's recommendations in the five years ending March 31, 1957. The table below summarises what each State may expect to receive under our recommendations taken together in each of the five years beginning on April 1, 1957. The figures shown against shares of taxes are only estimates and indicate the order of the sums to be received; the actuals will vary from year to year.

State	Shares of taxes	Grant under article	Grant under substan- tive por- tion of article	Total
(Rupees in crores)				
Andhra Pradesh	8·50	4·00	12·50	
Assam	2·75	0·45	4·05	7·25
Bihar	10·00	0·43	3·80	14·23
Bombay	14·75			14·75
Kerala	3·75		1·75	5·50
Madhya Pradesh	7·00		3·00	10·00
Madras	8·25			8·25
Mysore	5·50		6·50	11·50
Orissa	4·00	0·09	3·35	7·44
Punjab	4·25		2·25	6·50

Rajasthan	4.25	2.50	6.75
Uttar Pradesh	16.25		16.25
West Bengal	9.50	0.91	3.85
Jammu and Kashmir	1.25		14.26
Total	100.00	1.88*	37.55
			139.43

*This is an average for five years of payments which will actually be made to the State in the three years ending March 31, 1960. Grants-in-aid under article 273 cease on the expiry of ten years from the commencement of the Constitution.

Note 1: Assam will receive in addition, a grant-in-aid of Rs. 40 lakhs under clause (a) of the second proviso to article 275 (1).

Note 2: Under Section 74 of the State Reorganisation Act, the States of Bombay, Kerala, Madras and Mysore are entitled to receive during the three years ending March 31, 1960 the sums by which a prescribed percentage of their share of divisible Central taxes may fall short of average of the revenue gap grants guaranteed to the former Part B States of Saurashtra, Travancore-Cochin and Mysore, now merged in them. On the estimate of divisible Central taxes adopted by us, the sums due to Kerala and Madras will be marginal while Bombay and Mysore may receive sums of the order of Rs. 3½ crores and Rs. one crore respectively for all the three years.

The increased devolution just mentioned is not the only source of additional income for the States. During this period the States will receive their share of the new Centrally levied tax under article 269, namely, the tax on railway fares. These receipts, which do not form part of the revenue devolved by us, are likely to be of the order of Rs. 15 crores in full year; a State-wise detailed analysis, on the basis of the distribution recommended by us, is given in the table below:

State	Share of tax on railway fares (Rupees in lakhs)
Andhra Pradesh	131
Assam	40
Bihar	139
Bombay	241
Kerala	27
Madhya Pradesh	123
Madras	96
Mysore	66
Orissa	26
Punjab	120
Rajasthan	100
Uttar Pradesh	278
West Bengal	94
Total	1481

We cannot over-emphasise the paramount importance of States balancing their revenue budgets. We have framed out scheme of devolution so as to enable them to do so. With a massive development plan under implementation, there is a grave risk of the budgetary deficits of the States endangering the country's economy by adding to the inflationary potential. Now that all expenditure creating permanent assets are being treated as capital outlay, deficits on current account covered by borrowing results in unfair shifting by the present generation of its burden to future generations. Development expenditure should, therefore, be adjusted to the available resources and States should not run into a revenue deficit even for meeting such expenditure. We earnestly trust that they will bear this in mind in shaping their financial policies.

COMMITTEE ON CO-OPERATIVE LAW, 1956—REPORT

Delhi, Manager of Publications, 1957. 2 parts.

Chairman : Shri S.T. Raja.

Members : Shri S.K. Hiranandani; Shri J.C. Ryan; Shri K. Subramanyam Nayudu; Shri S.S. Puri; Shri A. Palaniappa Mudaliar; Shri M.D. Vidwans.

Secretary : Shri M.P. Bhargava.

APPOINTMENT

The Committee on Cooperative Law was constituted under the Ministry of Food & Agriculture vide their Resolution No. 5-8/56-Coop. I, dated June 6, 1956.

TERMS OF REFERENCE

(a) To review the existing cooperative legislation and to make recommendations for a simple legislative measure generally suited to the whole country to facilitate coordinated progress of the movement.

(b) To examine, in the light of recommendations of the Rural Credit Survey Report, the modifications necessary in the Cooperative Societies Act and rules for giving effect to the concept of State partnership in share capital and State participation in management of cooperative societies.

(c) To examine the existing provisions relating to various types of cooperative societies listed below and to suggest if any modifications are required in the Act, Rules as well as bye-laws so that these societies may be able to play an increasingly important role in the economic development of the country.

- (i) Credit;
- (ii) Marketing;
- (iii) Processing;
- (iv) Irrigation;
- (v) Dairying;
- (vi) Farming;
- (vii) Small Scale and Village and other Industries;
- (viii) Consumers;
- (ix) Labour Contract, Construction and Housing;
- (x) Transport, etc.

(d) To prepare standard sets of bye-laws which would facilitate the proper and smooth working of the new types of societies which are sought to be encouraged under the changed economic and social policy.

(e) To consider other related matters.

CONTENTS

Introductory; Review of Cooperative Legislation in India; Model Cooperative Societies Bill; Model Rules; Model Bye-Laws; Administration of Cooperative Law; Summary of the Provisions in the Model Cooperative Societies Bill and the Model Rules; Appendices I to VII.

RECOMMENDATIONS

I Model Co-operative Societies Bill

The following are the important provisions in the Model Co-operative Societies Bill.

The State Government may appoint a person to be the Registrar of co-operative societies for the State and may appoint other persons to assist him and confer on such persons all or any of the powers of the Registrar. The persons appointed to assist the Registrar shall exercise the powers conferred on them subject to the general superintendence and control of the Registrar.

A co-operative credit society consisting mainly of agriculturists shall be registered with unlimited liability, unless otherwise directed by the State Government.

For registration as a co-operative society, the objects of the society must not only comply with the provisions of the Act and the rules, but should also be consistent with co-operative principles and with the principles of social justice. The society must also satisfy the requirements of sound business and have a reasonable chance of success.

A society may, by an amendment of its bye-laws, change the form or extent of its liability, provided that the members and creditors of the society are given an opportunity to withdraw their shares or deposits in the society.

In registering an amendment to the bye-laws of a co-operative society, the Registrar is to be satisfied that the proposed amendment is not contrary to the provisions of the Act and the rules and is not inconsistent with the principles of social justice.

A society may transfer its assets and liabilities, in whole or in part, to any other co-operative society or divide itself into two or more co-operative societies. Such amalgamation or division, however, can be effected after giving the members and creditors of the societies concerned an opportunity to withdraw their shares or deposits in them.

A co-operative society shall admit as members only individuals who are competent to contract, any other co-operative society and the State Government. A society may also admit an individual as 'nominal' or 'associate' member. A nominal member shall not be entitled to any share in the assets or profits of the society.

Every member of a co-operative society shall have one vote in the affairs of the society. But where the Government is a member of the society, each person nominated by the State Government or the Committee of the society shall have one vote. Voting by proxy will not be allowed.

An individual member may hold shares in a co-operative society not exceeding rupees five thousand. The State Government may, by notification in the Official Gazette, fix a higher maximum in special cases.

A minor, or a person of an unsound mind, may acquire, by inheritance or otherwise, the shares of a deceased member in a co-operative society.

The liability of the past member or the estate of a deceased member for the debts of a society shall continue for a period of two years from the date of his ceasing to be a member.

A society shall convene at least once a year an annual general meeting for the approval of the programme of its activities for the coming year, for the election of the members of the Committee, for the amendment of bye-laws etc.

The State Government shall have the right to nominate not more than three members or one-third of the total number of members of the Committee of a co-operative society, whichever is less, where the Government has subscribed to its share capital directly or indirectly or has guaranteed debentures issued by it or has guaranteed the repayment of loans advanced to it.

The Registrar may supersede the Committee of a co-operative society, if he is satisfied that it is persistently negligent in the performance of the duties imposed on it by the Act and the bye-laws. Before removing the Committee, the Registrar will give an opportunity to it of being heard. In place of the Committee removed, the Registrar may appoint a new Committee consisting of one or more

members of the society or appoint an Administrator who may not be a member of the society.

The new Committee of a co-operative society, an Administrator or a Liquidator may apply to a magistrate for securing records and property of the society which may have been withheld by the outgoing Committee.

Any debt owing to a co-operative society by a member shall be a first charge upon the crops and other agricultural produce, cattle, fodder for cattle, agricultural or industrial implements, raw materials for manufacture and finished products belonging to a member. A member shall not transfer any property which is subject to a first charge of the society, except with its permission in writing. Any transfer of property made in contravention of these provisions will be void. The first charge shall be available as against a claim of the Government arising from any loans granted to a member under the Land Improvement Loans Act, 1883 or the Agriculturists Loans Act, 1884, after the grant of loans to him by the Society.

A member of a co-operative society may execute an agreement in favour of a society authorising his employer to deduct from his salary such amount as may be specified in the agreement and pay the amount so deducted towards the repayment of the loan taken by him from the society.

In addition to exemption from the income-tax, registration and other fees which the co-operative societies at present enjoy, the State Government may exempt any class of co-operative societies from taxes on agricultural income, on sale or purchase of goods and on professions, trades, callings and employments.

It shall be the duty of the State Government to encourage and promote the Co-operative Movement in the State. The State Government may subscribe directly to the share capital of a cooperative society. It shall, however, not be entitled to a dividend at a rate higher than that at which such dividend is payable to any other shareholder of the society.

The State Government may contribute indirectly to the share capital of a co-operative society. For this purpose, it may provide moneys to an apex society which shall credit them to a fund to be called the 'Principal State Partnership Fund'. The Fund is to be utilised by the apex society for directly purchasing shares in its own name in central co-operative societies affiliated to it or in providing moneys to a central co-operative society to enable the latter to purchase shares in primary co-operative societies. The moneys received by the central society out of the 'Principal State Partnership Fund' will be credited by it to a 'Subsidiary State Partnership Fund'.

Every purchase of shares out of the moneys in the 'Principal State Partnership Fund' or a 'Subsidiary State Partnership Fund' shall be made only with the previous

approval in writing of the State Government. The liability in respect of shares purchased out of the Funds mentioned above will be limited to the amount paid in respect of such shares. If a central co-operative society in which shares are purchased from the 'Principal State Partnership Fund' or a primary co-operative society in which shares are purchased from a 'Subsidiary State Partnership Fund' is liquidated, the State Government shall not have any claim against the apex society in respect of any loss arising from such purchases. All moneys to the credit of the 'Principal or Subsidiary State Partnership Fund' shall not form part of the assets of the apex or central societies. The State Government may enter into an agreement with an apex society setting out the terms and conditions on which it shall provide moneys to the apex society for the purchase of shares in central societies or for the purposes of providing moneys by it to central societies to enable them to purchase shares in primary societies.

The State Government may assist co-operative societies by giving them loans and advances, by guaranteeing debentures issued by a society, by guaranteeing loans advanced to a co-operative society, or by giving subsidies.

Out of the net profits in a year, a co-operative society shall transfer an amount which is not less than twenty-five per cent of the profits to the reserve fund. It shall also contribute to the Cooperative Education Fund at a rate prescribed in the rules. The balance of the net profits may be utilised by it in payment of dividend, in payment of bonus to members in proportion to the amount or volume of business done by them with the society, in payment of bonus to employees, in creation of funds etc.

A co-operative society may create a provident fund for the benefit of its employees. The provident fund shall not form part of the assets of the society.

The Registrar may inspect the books of a co-operative society on his own motion.

In the course of an audit, inquiry or inspection, if it is found that a person who was entrusted with the management of a society, has made any payment contrary to the Act, the rules and the bye-laws, or has caused any loss to the society by breach of trust or by gross negligence, the Registrar may, after an enquiry into the conduct of the person, order him to restore the money or the property.

A dispute touching the constitution, management or the business of a co-operative society shall be referred to the Registrar and no court will have jurisdiction to enter any suit or other proceedings in respect of such disputes. The disputes may be decided by the Registrar himself or may be transferred to another person who has been invested by the State Government with powers in that behalf, or to an arbitrator.

Before cancelling the registration of a co-operative society, the Registrar may order the society to be wound up and appoint a liquidator for the purpose. On his appointment, a liquidator will take into his custody all the property belonging to the society. The liquidator shall continue to have the custody or control of the property of the society during the period of appeal, and even when an appeal is preferred, until it is decided. If the appeal is rejected the liquidator will proceed with the liquidation proceedings.

The State Government may appoint the Registrar or any other person to act as trustee for the purpose of facilitating the working of co-operative land mortgage banks.

The debentures issued by a State Co-operative Land Mortgage Bank shall carry the guarantee of the State Government as to the repayment of principal and payment of interest.

The State Government may guarantee for any specified period, the repayment of a loan granted by a land mortgage bank in excess of the amount to which a borrower is entitled on the basis of the value of the land determined in accordance with the standards of valuation in force, provided the loan is for the development and improvement of land.

A mortgage in favour of a land mortgage bank will have priority over any claim of the Government arising from loans under the Land Improvement Loans Act, 1883 or the Agriculturists Loans Act, 1884.

A mortgage executed in favour of a primary land mortgage bank will stand automatically vested in the State Co-operative Land Mortgage Bank.

If an instalment payable in respect of a loan made by a land mortgage bank remains unpaid, the Registrar, may, on the application of the land mortgage bank, direct the recovery of the amount due by distress and sale of the produce of the mortgaged property. Similarly, the Registrar shall have the power to bring the mortgaged property for sale without the intervention of the court, in satisfaction of the debts due by the member to a land mortgage bank.

The Registrar, or any person subordinate to him empowered by the Registrar in this behalf may, on the application of a co-operative society, make an order directing the payment of any debt due to the society by selling the property subject to a first charge.

The orders of the Registrar for the recovery of moneys, the awards of arbitrators and orders of the Tribunal shall be executed by the civil court, by the Collector, or by the Registrar or any person authorised by him.

The Registrar may direct the attachment of the property of a person before judgment, if he is satisfied that the person, with the intention of delaying the enforcement of an order or an award, is likely to remove the property from the jurisdiction of the Registrar.

The State Government shall constitute a Tribunal consisting of not more than three members. Any person aggrieved by the decision of the Registrar, or an award of an arbitrator, given in the settlement of a dispute, may appeal to the Tribunal.

An appeal against the orders of the Registrar in certain cases shall lie to the State Government and against orders passed by any person other than the Registrar, to the Registrar.

No civil or revenue court will have jurisdiction in respect of matters connected with the registration of a co-operative society or its bye-laws the removal of the Committee, the winding up of a society or any dispute required to be referred to the Registrar.

II Model Rules

The following are the important provisions made in the Model Rules.

The bye-laws of a co-operative society shall provide for certain matters essential for its organisation and management, such as the objects of the society, the nature and extent of the liability of the members, the extent to which the society may borrow funds, the purposes for which the funds may be applied for, etc. In addition to these, the bye-laws may also make provision in regard to matters which are incidental to the organisation of the society and the management of its business such as, for instance, the method of recruitment and the conditions of service of the salaried employees etc.

An amendment of the bye-laws of a co-operative society shall be made by a resolution passed by a two-thirds majority of the members present and voting.

A person shall not become a member of two primary credit societies.

The chairman of a meeting of a cooperative society shall have a second or casting vote.

A defaulting member shall not be appointed to represent a society in another co-operative society.

For the purpose of election of members of its Committee, a co-operative society may divide its membership into different groups on a territorial or any other basis. The bye-laws may also specify the number of proportion of the members of the Committee who may be elected to represent each such group on the Committee and may specify further that, the representatives may be elected by all the members of the society or by only that particular group of members to which such representatives belong.

A co-operative society shall not appoint any person as its paid officer or employee in any category of service, unless he possesses such qualifications and furnishes such security as may be specified by the Registrar.

Every co-operative society shall contribute an amount, not exceeding five per cent of its net profits in a year, to the Co-operative Education Fund which will be

administered by the State Co-operative Union and if there is no such Union, by a committee appointed by the Registrar.

The reserve fund of a co-operative society shall be indivisible and no member shall have a claim to any share in it. It shall not be withdrawn without the permission of the Registrar previously obtained in writing. Unless otherwise permitted by the Registrar, the reserve fund shall not be invested by the society in its business.

A co-operative society shall not receive deposits and loans from members or non-members exceeding the limit fixed by the Registrar for that society. However, a co-operative society which accepts deposits from members only and has no other outside liability may accept such deposits in excess of the limit fixed by the Registrar, provided, however, that the excess amount is invested outside the business of the society.

A co-operative society accepting deposits and granting cash credits shall maintain fluid resources in such form and according to such standards as may be fixed by the Registrar.

Every co-operative society shall pay to the State Government a fee for the audit of its accounts in accordance with the scale fixed by the Registrar with the previous approval of the State Government.

No person shall be qualified to be a member of the Tribunal, unless he is a district judge or has exercised the powers of a district judge or is an advocate of at least ten years standing, or is a law-graduate having considerable experience of the Co-operative Movement.

The Registrar may direct a co-operative society to get its accounts written up to any date in such form and within such time as he may direct. In case of failure by the society to do so, the Registrar may get the accounts written up by a person deputed by him for the purpose and may recover the cost thereof from the society.

Every co-operative society shall furnish to the Registrar every year a receipt and disbursement statement, a profit and loss account, a balance sheet and any other returns specified by him. In case the society fails to do so, the Registrar may depute a person to get the returns and recover the cost thereof from the society.

EXPERT COMMITTEE ON ECONOMY IN THE USE OF CEMENT IN BUILDING CONSTRUCTION, 1956—REPORT

Delhi, Manager of Publications, 1957. 15p.

Chairman : Sardar Sarup Singh.

Members : Shri J.M. Rijhwani; Shri H.R. Hay; Shri S.K. Joglekar; Shri C.B. Patel.

Coopted

Members : Shri L.P. Bhargava; Shri B.C. Ganguli; Col. H.C. Vij; Shri M.S. Bhatia; Shri K. Rama Varman; Shri G.L. Bhandari.

APPOINTMENT

The Experts Committee on Economy in the use of Cement in Building Construction was constituted under the Ministry of Works, Housing and Supply in July 1956.

TERMS OF REFERENCE

(i) Regarding substitution of cement by lime in mortars;

(ii) Adoption of alternate specifications for buildings to reduce the consumption of cement.

CONTENTS

Introduction; Material for Building Mortars; Properties Required of Building Mortars; Characteristics of

Cement and Lime Mortars; Mortars for Different Uses; Use of Cement in Terraces of Flat-roofs; Use of Cement in Floors; Use of Cement in Roofs; Use of Cement in Other Structures; Appendices I and II.

RECOMMENDATIONS

The following recommendations for reduction factors for different slenderness ratios for masonry walls have been taken from the British Standard Code of Practice C.P. 111 (1948). These factors and the associated definitions may be adopted till such time as the Indian Standard Code of Practice for load bearing walls is accepted and published.

Slenderness Ratio	Reduction Factors
1	1·0
2	0·96
4	0·88
6	0·80
8	0·70
10	0·60
12	0·50 (Limit for Lime Mortars)

14	0'40
16	0'35
18	0'30 (Limit for Cement Mor- tars)

The slenderness ratio is obtained by dividing the effective height of the wall or column by its thickness. The effective height is determined as follows:

(i) For columns provided with complete support at bottom and lateral support parallel to the line of one of the horizontal surface dimensions at the top; the effective height relative to the directions of the top support shall be the height between the support.

The effective height at right angles to this shall be twice the height of the column above the lower support.

In the absence of top support the effective height relative to both directions shall be twice its height from the lower support.

(ii) For walls where laterally support at top and bottom, the effective height shall be $\frac{3}{4}$ th of the height between such lateral support.

In the absence of top lateral support, the effective height shall be $1\frac{1}{2}$ times the height of the walling above bottom lateral support.

The height between lateral support is termed storey height in many building regulations.

COMMITTEE ON ELECTRIC FURNACES, STEEL FOUNDRIES AND STEEL RE-ROLLING MILLS, 1956—REPORT

New Delhi, Ministry of Commerce and Industry, 1957. 84p.

Chairman : Shri B.B. Saksena.

Members : Shri S. Sambasivan; Shri R.M. Agrawal;
Shri D.P. Dada; Shri K.S. Raghupathi.

Member-

Secretary : Shri S. Banerjee.

APPOINTMENT

The Committee on Electric Furnaces, Steel Foundries and Steel Re-rolling Mills was constituted under the Ministry of Commerce and Industry vide their Resolution No. I.&S.(B)-55(7)/56, dated July 24, 1956.

TERMS OF REFERENCE

The Committee will—

(a) study the raw material requirements of the existing electric furnaces, foundries and re-rolling mills in the country and assess the kind of expansion that is possible having regard to the availability of the raw materials in the future;

(b) suggest ways and means of improving the efficiency of these units and recommend steps that should be taken to make them economic and independent of any form of subsidy in regard to the prices at which they obtain their raw materials;

(c) assess the additional capacity that it may be desirable to set up in the light of the developments which are taking place in other sectors of the economy and the considerations set out in (a) and (b) above;

(d) indicate suitable locations for the new units that may be set up having regard to the importance of promoting regional development and other relevant considera-

tions such as transport facilities and raw materials supplies; and

(e) formulating principles which should govern the examination of the applications for setting up re-rolling mills which have been received in response to the Press Note of April 11, 1956.

CONTENTS

Introduction; The Industry in General; Part I: Steel Re-rolling Industry in India; Steel Re-rolling Industry; Raw Material Requirements of the Existing Re-rolling Mills in India; Possibilities of Expansion of the Industry and the Availability of Raw Materials; Ways and Means of Improving the Efficiency of Re-rolling Units and Steps to be taken to Make them Economical and Independent of any form of Subsidy in Regard to Prices of Raw Materials; Principles to be followed in Establishing Additional Re-rolling Capacity in the Deficient Areas; Matters not Directly Covered by the Terms of Reference; Summary of Conclusions and Recommendations; Part II: Electric Furnaces and Steel Foundries in India: General Observations; Scope of Enquiry and State of Development of Electric Furnaces and Steel Foundries; Raw Material Requirements of Electric Furnaces and Steel Foundries; Possibilities of Expansion of the Industry and the Availability of Raw Materials; Ways and Means of Improving the Efficiency of Steel Foundries and Electric Furnaces; Principles to be followed in Locating new Sites for Proposed Electric Furnaces and Possibilities of Additional Steel Casting Units; Matters not Directly Covered by the Terms of Reference; Summary of Con-

clusions and Recommendations; General Remarks by the Committee; Appendices from I to XI.

RECOMMENDATIONS

Part I: Steel Re-rolling Industry

The existing capacity of the Re-rolling Mills of various categories including Secondary, Producers as on November 1, 1956 is about 700,000 tons per annum on one shift basis. As certain returns need re-checking, the figure should be regarded as provisional.

Recommendation No. 1

All the existing capacity is not covered by valid sanctions. In some cases, the plant and machinery which was mainly for the purpose of replacement has been put up along with plant already in position. Strictly speaking, the capacity created without proper sanction should not be recognised. It would not, however, be in the national interest to ignore the existence of such plant and machinery.

Recommendation No. 2

In addition, some plant and machinery has been licensed by the Iron and Steel Controller to be obtained from abroad or indigenously, mainly for replacement. There is reason to believe that most of the plant and machinery now to be arranged will have the effect of increasing the capacity of the re-rolling units. Such additional capacity has been assessed at 104,760 tons per annum and may be taken as the projected additional capacity.

Recommendation No. 3

While the major part of the existing capacity is based on the use of billets, quite a few units, particularly smaller units, depend on re-rollable scrap for their operation. Re-rollable scrap is not proper material for the manufacture of quality product, but its use will be continued in mills below 8" sizes. These can operate economically on re-rollable scrap. The capacity of such units which can suitably run on re-rollable scrap is 26,200 tons per annum. The remaining capacity should be taken as based on billets. It comes to 1,325,746 tons on double shift.

No difficulty is anticipated in the mills below 8" in size getting their future requirements of re-rollable scrap as hitherto.

As regards the units based on billets, a number of such units have had to restrict their operations to single shift or even less. It is generally accepted practice for such units to work double shift to ensure economic production. Allowing for wastage at 10 per cent, their total requirements of billets on double shift, work out to 1,458,024 tons per annum.

The indigenous supplies of billets and imports under liberal policy have not proved sufficient to meet the re-

quirements of the re-rolling industry according to the general practice in the line.

The total anticipated availability of billets and electric furnace ingots for re-rolling purposes by 1960-61 is 890,000 tons a year. This quantity in terms of billets comes to 876,250 tons.

Recommendation No. 4

Nothing can be said about the quantum of billets that would be available in the near future. Anyway, it is clear that it would not be possible to cater to the entire industry as it exists today on two shift basis which represents the general practice in industry to achieve economic production. It would, therefore, be necessary to regulate billet supplies in the manner which more or less maintains the present pattern of distribution.

Recommendation Nos. 5 and 6

In spite of the Government of India's liberal import policy in regard to billets, it was found necessary to obtain from abroad substantial supplies of certain sections for which capacity existed in the country. This points to the conclusion that it is difficult to get billets from foreign countries. Government should, therefore, make a special effort to get from steel producing countries, through trade agreements or otherwise, as much billet supply as possible to supplement the indigenous production to enable the re-rollers to work on an economic basis. At least, it should be ensured that the industry as a whole does not get less than what they were given in 1956.

Recommendation Nos. 7 and 8

It would take some time to increase the billet production by utilising the scrap available in the country. Meanwhile it would be in the national interest if the mills of 8" and above are also advised to make use of as much scrap as possible to secure the maximum output. Till such time as the raw material position for the Re-rolling Industry continues to be tight, the Main Producers may be asked to make available to the Re-rolling units scrap at least to the same extent as during the years 1955-56.

Recommendation No. 9

Having regard to the trend of demand for re-rolled sections, we reckon that the demand by 1960-61 will far exceed the estimates given in the Second Five-Year Plan, with reference to the supply position of billets. The advisability of making better provision for billets in the Third Plan period may, therefore, be considered.

Recommendation No. 10

If adequate supplies of billets cannot be arranged, the available supplies may have to be rationed among the re-rollers pro-rata on the capacity as recently assessed by

the Iron and Steel Controller. In such allocations of billets (i) the units which were given the option recently to change over to billets but preferred to continue to operate on scrap and (ii) the unauthorised capacity will have to be ignored.

Unless supplies for one shift at least are assured to the industry, there would be a danger of larger units having to suspend their operations.

Recommendation No. 11

The re-rolling industry is amenable to regional development. New capacity should be established so as to fill the gap locally as far as possible.

The following States are deficient in re-rolling capacity:

1. Andhra.
2. Assam (including Manipur, Tripura and N.E.F.A.).
3. Bihar.
4. Himachal Pradesh.
5. Jammu and Kashmir.
6. Madras (including Pondicherry).
7. Madhya Pradesh.
8. Mysore.
9. Kerala.
10. Orissa.

The other States have surplus re-rolling capacity.

Recommendation No. 12

Minimum economic unit in the re-rolling industry defined.

Recommendation No. 13

Additional re-rolling capacity in deficient areas should be created by resorting to the following steps in the order mentioned:

(1) The parties which have been allowed to import or otherwise obtain new rolling mills plants may be advised to establish their plants in a State other than the State where there is already over-concentration of capacity.

(2) Mills in the surplus (congested) areas may be permitted to transfer their existing plant and machinery to the deficient State.

(3) The existing mills in the State may be permitted to expand their plant suitably.

(4) If the gap cannot be filled up in any one or more of the above ways, permission to obtain new plant and machinery for establishing new units should be given.

Recommendation No. 14

If, for a particular State, there be schemes involving the manufacture of (i) Special Sections exclusively (ii) Special Sections in conjunction with Common Sections and (iii) Common Sections alone, they should be considered in that order of preference.

Recommendation No. 15

No re-rolling mills should be allowed to be established in the future on the basis of supplies of ingots or billets from Electric Furnaces which are mainly for Steel Foundries.

Recommendation No. 16

For all billets allocation production orders should be planned by the Iron and Steel Controller in the same way as on the Main and Secondary Producers.

Recommendation No. 17

Future planning of orders should aim at utilising the capacity of the larger mills for meeting the demands for Common Sections which are suitable for mass production and that of the smaller mills for the production of other Sections as far as possible. As large capacity for producing bars and rods, certain sections such as 1/2" and 5/8" diameter rounds and squares flats and light structurals, is available with the Re-rolling Industry, it would be possible to restrict their production by the major steel plants in the country and to utilise their capacity for bigger sections for which the demand is not fully met.

Recommendation No. 18

While mills below 8" may continue to base their operations on scrap as at present, they should be ultimately replaced by modern mills operating on billets.

Recommendation No. 19

In a number of mills equipment is obsolescent and ill-balanced. Ultimately, improved efficiency should be aimed at. It can be secured, among other things, by

- (a) improved lay-out obtained by re-vamping;
- (b) modernisation and balancing of equipment, for example, furnace capacity to the mill and proper cutting and handling facilities;
- (c) providing up-to-date technical know-how and supervision; and
- (d) ensuring regular and adequate supplies of raw materials of uniform quality.

Recommendation No. 20

As a long range policy, balanced and modernised plants with effective quality control should be preferred.

Recommendation No. 21

Quality control in the Re-rolling Industry needs to be developed.

Recommendation No. 22

There is a congestion of small re-rolling mills in certain areas. This is primarily due to the availability of the requisite type of skill locally. It would be of greater

advantage if two or more of them could be induced to pool their resources and work as a single unit.

Recommendation No. 23

There are some re-rolling mills where the working conditions are not quite satisfactory. Such units should be shifted to better sites, preferably to the Industrial Estates wherever they are being developed.

Recommendation No. 24

Larger mechanised re-rolling units, if given adequate supplies of billets, can pay their way without any 'subsidy'. All such units may be treated as Secondary Producers. Further there will be no need to give any subsidy to the smaller units provided they get regular supply of billets to work double shift. The entire question of subsidy is now before the Tariff Commission.

Recommendation No. 25

It would improve the lot of re-rolling units if they enlarge their scope of activities by providing for processing or fabricating suitable consumer goods or parts for the manufacture of machinery, equipments, etc.

Recommendation No. 26

Existing classification of re-rollers should be revised and in future there should be only two categories on the basis of type of raw material used, billets or scrap.

Recommendation No. 27

The advisability of including rolling mill engineering as a subject in the technical colleges and institutes may be considered.

Recommendation No. 28

It would be conducive to economic production, facilitate distribution of finished products and relieve pressure on the transport system, if mills which are concentrated in certain areas in surplus States could be dispersed over wider areas within such States.

Part II: Electric Furnaces And Steel Foundries

The estimated total liquid metal capacity of steel furnaces, existing and projected will be 250,000 tons by 1960-61, and this should be utilised both for casting and for the production of ingots or billets. The melting scrap expected to be available by 1960-61 would be 260,000 tons per year. This would hardly be sufficient to meet the needs of the existing and projected Steel Furnaces, as their actual requirements of scrap would be about 285,000 tons a year.

Recommendation No. 1

The capacity of the existing steel foundries is 21,000 tons per annum. They expect to increase their capacity

to 36,000 tons per annum by 1960-61. These Foundries should be encouraged to expand and to utilise all their liquid metal for casting purposes only.

Recommendation No. 2

The estimated demand for steel casting by 1960-61 is 72,000 tons per annum and the steel foundry capacity is expected to be 80,000 tons by that time. This will take care of the entire demand for steel castings. Therefore, there is no need to create any additional casting capacity before 1960-61. The position should be reviewed thereafter.

The estimated availability of melting scrap (other than re-rollable industrial scrap) now is 200,000 tons per annum. This together with about 200,000 tons now being exported makes up a total of 400,000 tons, and with the ingot production of 6 million tons per annum after 1960-61, the expected availability of scrap by 1961-62/1965-66 is expected to be 1,000,000 tons i.e. 600,000 tons over and above the 400,000 tons.

Recommendation No. 3

There is definitely a need in the country for additional steel furnace for the manufacture of steel ingots or billets for meeting the needs of steel rolling industry. By 1960-61, 250,000 tons of Grades 2 and 3 scrap now being allowed to be exported, will be available. 20 per cent of this scrap is comprised of very light varieties, which arise in all parts of the country. Besides, other types of light scrap can be had throughout country. Efforts should be made to use such scrap in the regions where it arises.

In all, about 80,000 tons of this type of scrap would be available per year. Mains frequency induction furnace with monthly capacity of 150/300 tons should be set up to convert this scrap into billets for rolling mills at least one in each State and more than one if an assessment of scrap availability warrants such addition. Balance 80 per cent of the scrap should be pressed into compact bales in power hydraulic presses and should be converted into steel in big mechanically charged electric furnaces and converted into billets by adopting the method of continuous castings.

Recommendation No. 4

Such large furnaces can be installed in Bombay and Calcutta to begin with.

Recommendation No. 5

If individual private parties or co-operatives find it difficult to put up such large electric furnace plants, Government should assist the parties in overcoming the financial difficulties.

If the scrap of the types exported at present is utilised in electric furnaces, 150,000 tons of billets can be made available to the re-rolling mills per annum.

The additional scrap estimated as available in the period 1960-61/1965-66 is 600,000 tons and if all of this additional scrap can be utilised in electric furnaces for producing billets an additional 500,000 tons of billets will be available per year.

Recommendation No. 6

Any future plans for the development of the steel industry should provide for the continuance of electric furnace plants that might be put up in present conditions for billet-making.

Recommendation No. 7

It is suggested that the Mysore Iron and Steel Works may expand their electric furnace capacity to 50,000 tons instead of 30,000 tons a year and supply 15,000 tons of billets to the re-rolling mills in the South.

Recomimendation No. 8

Until the furnaces are erected to utilise the scrap exported at present, permits may be given for export, subject to review every six months and the exporters making a certain percentage available to electric furnaces. Eventually the export should be stopped.

Recommendation No. 9

Scrap should be de-controlled, so that it may find a price level through normal trade channels.

Recommendation No. 10

Steel foundries should modernise to achieve large scale production utilising their full melting capacity for foundry purposes only.

Recommendation No. 11

The classification of scrap followed at present under the control needs considerable modifications. Fairly identifiable items of scrap should be classified under the category of industrial or re-rolling scrap, the balance as melting scrap only.

Recommendation No. 12

Boring and turnings should be canalised to the steel foundries by establishing a working arrangement between the major producers or borings and turnings and steel foundries or by pressing or compacting this at source to avoid deterioration of the material.

Recommendation No. 13

An organised trade should be developed for supply of high grade silica sands of low iron and alkali contents.

Recommendation No. 14

The possibilities of the setting up of a plant for manufacture of graphite electrodes should be explored with the technical assistance of a leading foreign country in the field.

Recommendation No. 15

Intensive research on the suitability of silica sands, bentonite and other binders should be undertaken.

Recommendation No. 16

Transport facilities and freight rates for steel scrap and silica sand should receive special consideration.

COMMITTEE ON ECONOMY OF IRON AND STEEL BUILDING CONSTRUCTION, 1956—REPORT

Delhi, Manager of Publications, 1958. 59p.

Chairman : Sardar Sarup Singh.

Members : Col. H.C. Vijn; Shri M.S. Bhatia; Shri C.P. Malik; Director Civil Engineering, Railway Board or his representative; Housing Adviser, Ministry of Works, Housing & Supply, Shri T.V. Joseph (alternate Shri C.S. Chandrasekhara); Shri N. Padmanabha Iyer; Shri R.N. Dutt; Shri C.J. Shah.

imperative and urgent need for exploring all possible avenues leading to economy in the use of steel in building construction by the Ministry of Works, Housing and Supply under the National Buildings Organisation in September 1956.

TERMS OF REFERENCE

To examine and report on this matter.

CONTENTS

Background and composition of the Committee; Observations and Recommendations of the Committee; Statement, Appendices; Annexures; Charts.

RECOMMENDATIONS

The Committee realised that economy in the use of steel in buildings can be effected in several ways and concerted and co-ordinated drive is necessary on all possible fronts to obtain conspicuous results. Thus the saving may be through rationalisation of bye-laws and codes of practices, rationalisation of design methods, improvements in constructional practices and substitution by other suitable materials. Some of these measures, specially those of the last category, may be for a short duration i.e., for the period of emergency; some others are for all times and can be brought into operation almost at once while others require a period of preparation, training and re-adjustment in thinking and in operations.

The Committee noted that the Indian Standards Institution have progressed substantially in rationalising bye-laws and codes of practices. Their past work and programme are well set out in their memorandum presented to the Government of India and Planning Commission in February, 1957 (Appendix I). The codes and standards so far finalised on this subject could be brought into use almost immediately, by all institutions and organisations. A specific recommendation to this end has been made in this report (vide Recommendations 10 and 13).

With the aid of these bye-laws and codes of practices the design methods will improve and will be rationalised. For design of steel structures, especially, the Indian Standards Institution have in hand preparation of handbooks covering the design and fabrication of almost all types of structures.

In many places use of structural steel can be avoided by the use of M.S. bars or pre-stressing steel in concrete. Specific recommendations in this direction are given in Recommendations 4 and 5 on page 5 of this report.

Design practices that result in economy in the use of structural steel include adoption of plastic design in place of elastic design currently adopted. Similarly it has been known that definite economies are associated with certain preferred shapes for sections and components.

To obtain the effective practical implementation of various aspects of efficiency in the use of steel in buildings there is a pressing need for a team of structural engineers. This need may be met either in the shape of a special cadre in Government Departments or in the shape of consultants in Government or private practice.

Foremost in the efforts to save steel through improvements of construction practices should come the use of superior constructions material and erection practices which bring in its wake the need for quality control. With this is connected a comparatively greater freedom

for the administration to select efficient contractors especially for structures where large savings in steel (and cement) are possible through quality control.

The substitute materials, the Committee has in mind, are pre-stressed concrete, timber and non-ferrous metals like aluminium. The role of these materials in effecting economy in steel by their substitution has been taken into consideration while making Recommendation 3 and the Statement 1 appended therewith. Partial prefabrication and mechanisation that are needed for large scale use of pre-stressed concrete have to be taken as the national evolution in building construction techniques. These methods are even now in use though to a relatively smaller extent, for erection of structural steel.

With these thoughts in the background the Committee desires to place before the Government for their consideration the following recommendations.

Recommendation No. 1

The measures required to ameliorate the existing shortages in iron and steel materials, in so far as the building industry is concerned are partly technical and partly administrative and these should go hand in hand to produce useful results.

Further, such measures are either long term or immediate, permanent or temporary for the duration of this shortage (which as far as can be envisaged is likely to last for a considerable time). The immediate measures include adoption of higher stress, more rational use and design of steel structures and use of substitute materials. The long-term measures include imparting training, encouraging better design practices and use of new techniques and materials.

Recommendation No. 2

The use of structural steel in building construction should be reduced to a minimum by its substitution by reinforced concrete and pre-stressed concrete and where possible and economical, by timber and aluminium where such substitute materials are available. Further reinforced or pre-stressed concrete materials should be efficiently designed to release maximum quantities of M.S. bars and rods and pre-stressing steel for use as substitute for structural steel.

Recommendation No. 3

Statement 1 (Page 11) indicates in broad terms the types of buildings and situations where steel of either category viz. structural or reinforcing, may be used. These have to be adapted to circumstances obtaining in each region. The important point is that a competent technical authority should consider all these alternatives and adopt the one which is economical and suitable for the particular situation. The measures can be termed mostly administrative and partly technical.

Recommendation No. 4

Since M.S. rods and bars are the categories to be preferred to structural from the foregoing considerations, the Ministry of Steel, Fuel and Mines and the Iron and Steel Controller should investigate the possibilities of turning out more M.S. rods and bars than at present, sacrificing, if necessary, equivalent quantities in the category of structural.

Recommendation No. 5

(i) The need for substituting structural steel and ordinary reinforced concrete by pre-stressed concrete is vital in the present context of shortages of both cement and steel.

(ii) As a positive step towards this end it is necessary to ensure that adequate quantities of pre-stressing steel should be available in the country from which the intending consumers can draw without going through the time consuming procedure of importing their requirements for each individual use as is being done at present.

(iii) For this purpose it is considered necessary to stock some quantities of this material against anticipated demands.

(iv) The Government may constitute a Committee for the purpose of determining the quantity and specifications of the material, to be so stocked. This Committee may include the Consulting Engineer (Roads), the Engineer-in-Chief, Army Headquarters, the Chief Engineer, Central P.W.D., the Ministry of Railways, Railway Board and representatives from State Governments who ordinarily use this material.

(v) The purchase, stocking and distribution of this material may be handled by the State Trading Corporation, a portion of the foreign exchange at present spent on the purchase of steel from abroad being diverted for this purpose.

(vi) The Committee referred to in para (iv) above will recommend the procedure to be adopted for allocation and distribution of this material to users against approved demands.

(vii) The present practice of permitting import of this material against ad-hoc indents should also continue and may even be liberalised to the maximum possible extent.

Recommendation No. 6

Timber is another substitute material proposed. Roofs of many buildings can be changed to timber construction. There is, however, an acute shortage of structural timber like teak; secondary timber can be used for structural purposes provided they are seasoned and adequately treated. Facilities for such treatment are at present inadequate with the result that this changeover is rendered difficult. Steps should be taken to make available in the market adequate quantities of treated timber of secondary species for structural use. For this

purpose a careful study, regionally, of the availability of timber (other than teak) should be made in collaboration with forest departments. If careful planning is done, the Committee feels, the changeover of roofing specifications to timber can be effected in a few years. These measures are technical and administrative.

Recommendation No. 7

To reduce dead weight in structures and consumption of steel, light weight construction is essential for multi-storeyed buildings. Hollow clay tiles and hollow concrete blocks with light-weight aggregates are suitable for this purpose. The Committee considers that the Government should set up plants immediately for producing these materials in principal areas where multi-storeyed construction is coming into practice.*

Recommendation No. 8

Use of Deformed Reinforcing Bars in concrete effect considerable economy in M.S. reinforcement. A note "Use of Deformed Reinforcing Bars in Concrete" prepared by N.B.O. will be found in Appendix II.

The Committee is informed that the Tata Iron and Steel Company is in a position to place these bars on the market at a nominal extra cost above the price of M.S. rods and bars. The Committee recommends that this may be done immediately and that these rods may be made available preferentially to M.S. rods and bars. The Government may inform concerned departments and State Government that this material should be used wherever possible taking advantage of the increased bond. These measures are partly technical but mostly administrative.

Recommendation No. 9

The Committee considers that there is room for economy in steel by its more rational use. This is amplified in the recommendations that follow.

Recommendation No. 10

The Committee has reason to suppose that live loads assumed for buildings of similar occupancies vary in the case of different departments. A fair measure of agreement has been reached in respect of loadings on structures in the draft Code IS: 875. The Government may advise all departments and State Governments to follow these standards as far as possible. This measure is technical.

* The Chief Engineer, Central P.W.D. was of the view that the suitability of hollow clay tiles and concrete blocks with light weight aggregate should be examined further before setting up factories for their manufacture.

Recommendation No. 11

At present design of steel structures is generally being done on the basis of out-moded codes. The Indian Standards Institution's Code (IS:800—1956) is an improvement on this code in several respects. The Government may request and make it mandatory on all departments to follow this code with immediate effect. This measure though technical needs administrative backing.

Recommendation No. 12

It will be seen from the Statement 1 (page 11) that where use of structural steel is unavoidable welding is preferred to rivetting from considerations of steel economy.

The Committee recommends that the Government may direct all departments that where structural steel is used, welded construction by competent welders should be accepted as an alternative and in preference to (if cost is the same for both) riveted constructions.

For this purpose designs on recognised principles of plastic theory should also be accepted. The measure is technical but requires administrative backing.

Recommendation No. 13

The Committee considers that in order to inculcate in the authorities concerned a direct sense of responsibility in the matter of rational use of steel, it will be advisable if the officer approving the design, records in each major design, certificate to the effect (i) that the use of structural steel has been avoided wherever possible and limited to the minimum in other cases and (ii) that the load stresses and design practices adopted are in conformity with IS: 800—1956.

It is further considered that similar certificates from a Chartered Engineer may be insisted upon in respect of all designs in private sector in which substantial quantities of structural steel is released either by the Provincial Iron and Steel Controller or by the Ministry of Commerce and Industry.

Recommendation No. 14

The Committee considered a proposal that in the present context of acute steel shortage, the permissible stresses in M.S. reinforcements in R.C.C. work may be increased; the Committee recommends that this question may be referred to the concerned Committee of the Indian Standards Institution for their very early consideration and decision.

Recommendation No. 15

About one-third of the quantity of M.S. rods and bars are at present marketed as untested. Permissible stress adopted for this category of steel by some departments is only 16,000 lbs. per square inch. Most of these

rods are rolled from billets slightly falling short of the standard specifications. The Committee feels that the Iron and Steel Controller may arrange to market this steel as 'tested' but certified to a lower class, say Class II, with guaranteed physical properties. The permissible stress for reinforcing rods of this class shall be considered and laid down by the relevant Committee of the Indian Standards Institution.

Recommendation No. 16

The Committee observes that considerable economies in cost and in steel will arise out of rational design of foundations and structure. For this purpose the Committee recommends (1) that persons be specially trained as design engineers for structures and foundations and that (2) a specialist individual or body be created for consultations in matters arising out of design of steel and R.C.C. structures and foundations. The Committee further recommends that the National Buildings Organisation will be the appropriate body to contain these specialists. This measure is administrative in character.

Recommendation No. 17

The Committee has seen the preliminary study by the National Buildings Organisation regarding the consumption of cement and steel in 10 multi-storeyed buildings in Delhi and has noticed the wide variations in the use of materials. The Committee feels that most design authorities could keep target figures for use of steel for various types of buildings from analysis of buildings already designed, and the designers should see that these target figures are bettered every time. Periodical publication of such figures by a body like the National Buildings Organisation will be helpful in the sharing of such knowledge.

Recommendation No. 18

The Committee feels that the information on use of twisted steel made available to them was insufficient to arrive at firm conclusions and that more comprehensive information supported by test results may be collected before large scale use of this could be advocated. The National Buildings Organisation and the Central Building Research Institute will collaborate on this project.

APPENDIX I

*Indian Standards Institution Report On The Steel Economy Programme (Up To December 31, 1956)
Presented By The Structural Steel Plant Committee*

1. Preliminary Planning

In 1950, the Planning Commission recommended to the Government of India that the Indian Standards Institution should undertake a programme for increasing

efficiency in the use of structural steel, by the formulation and implementation of standards relating to its production and use. Accepting this recommendation, the Government of India requested the ISI to take up a Steel Economy Programme to include:

- (a) Formulation of Standards for Hot-rolled sections;
- (b) Formulation of Standards for Cold-formed Light-gauge sections;
- (c) Formulation of Codes of Practice for the Use of Steel in Structures;
- (d) Preparation of Typical Designs and Drawings for and other aids to the implementation of the higher efficiency standards;
- (e) Preparation of Standard specifications, Codes of Practice and other publications for popularising welding as a medium of fabrication of steel; and

(f) Sponsoring experimental and other investigations necessary for the formulation and revision of higher efficiency standards, relating to production and use of structural steel.

In the ISI, this work was entrusted to the Structural Steel Sectional Committee, BDC 7, under the Chairmanship of Sir Jehangir Ghandy. The composition of Sectional Committee BDC 7, is given as Annexure I.

The detailed work on steel economy could be initiated in the Directorate only from December 1953 since it took some time to arrange for the services of a suitable senior engineer to take charge of the Steel Economy Section. At the end of November 1953, Shri T.V. Joseph joined the ISI as the Officer on Special Duty. His services had been made available by the Ministry of Railways.

Shortly afterwards, the United States Technical Co-operation Mission in India finalised an agreement for technical assistance to the ISI for the Steel Economy Programme.

2. Inauguration Of Work

The work of the Structural Steel Sectional Committee BDC 7, was inaugurated by Shri T.T. Krishnamachari at Calcutta, on February 13, 1954. Shri T.T. Krishnamachari referred to the importance which the Government of India attached to the tasks allotted to the ISI under the Steel Economy Programme. He mentioned that the experts who had studied the problem of conservation of steel had estimated that more than 25 per cent of steel now used in structural engineering might be considered as wasted because of the use of uneconomic sections and the adoption of uneconomic and outmoded design practices. He pointed out that even with the restricted availability and use of steel in 1954, this wastage amounted to over 1,50,000 tons annually, costing the country 8 to 9 crores of rupees, on the basis of the value of imported steel. Stressing the urgency of the work initiated,

he said that the Iron and Steel Control Organisation of the Government of India would be helpful at a later stage in implementing the standards and other findings of the Committee and that, if necessary, the enforcing of these recommendations could be arranged through Government regulations.

3. First Meeting Of The Steel Economy Committee Of The ISI

The first meeting of the Committee was held on February 13, 1954 under the Chairmanship of Sir Jehangir Ghandy.

The Structural Steel Sectional Committee, BDC 7, at its first meeting, distributed the steel economy work to four sub-committees, namely:

- (i) Steel Sections Sub-committee (BDC 7:1);
- (ii) Structural Codes and Design Sub-committee (BDC 7:2);
- (iii) Welding Sub-committee (BDC 7:3); and
- (iv) Structural Steel Research Sub-committee (BDC 7:4);

The four sub-committees in turn, had to set up a number of panels, to cover effectively the wide variety and extent of the subjects allotted to them. The names of the conveners of the four sub-committees and of the various panels set up by them are given in Annexure II.

The Steel Sections Sub-committee (BDC 7:1) is responsible for the formulation of standards for and the preparation of a handbook of structural sections. The structural codes and Design Sub-committee (BDC 7:2) is responsible for the formulation of codes of practice for the use of steel in structures and for the preparation of handbooks, typical designs, etc., for structural engineers. The Welding Sub-committee (BDC 7:3) is responsible for the formulation of specifications and codes of practice relating to welding and for the preparation of handbooks, brochures, etc., for the use of welding-engineers, inspectors, supervisors, and welders. The Structural Steel Research Sub-committee (BDC 7:4) is responsible for co-ordinating and sponsoring experimental research and also for the formulation of specifications relating to corrosion protection of light-gauge structural steel work.

4. Second Meeting of the Structural Steel Sectional Committee (BDC 7)

The second meeting of the Sectional Committee BDC 7 was held on May 5, 1955 at Calcutta under the Chairmanship of Sir Jehangir Ghandy.

In this meeting the Sectional Committee approved the detailed programmes of work prepared by the Sub-committees and also the issue for wide circulation and comments, of the Draft Indian Standards on

- (a) Code of Practice for Use of Steel in General Building Construction;

- (b) Schemes of Symbols for Welding;
- (c) Code of Practice for Use of Metal Arc Welding for General Construction in Mild Steel;
- (d) Glossary of Terms Relating to Welding and Cutting of Metals;
- (e) Specification for Covered Electrodes for Metal Arc Welding of Mild Steel;
- (f) Classification of Covered Electrodes for Metal Arc Welding of Mild Steel and of Low Alloy High Tensile Steels of Welding Quality; and
- (g) Code of Practice for Training and Testing Metal Arc Welders.

These seven draft Indian standards were later on finalised by the Committee through correspondence.

The Committee also considered the subject of 'tested' and 'untested' steels and decided that 'untested' steel should more appropriately be designated as 'commercial quality steel' and recommended to the Basic Ferrous Metal Sectional Committee (EDC 3) of Engineering Division Council (EDC) of the ISI the formulation of one or more additional specifications to cover these steels, in addition to IS:226—1955 specification for structural steel.

5. Third Meeting Of The Structural Steel Sectional Committee (BDC 7)

This meeting was held at Delhi on December 13, 1956, under the Chairmanship of Sir Jehangir Ghandy.

In this meeting, the Sectional Committee finalised for publication, the Indian standards mentioned below:

- (a) Specification for Rolled Steel Sections-Beams;
- (b) Specification for Rolled Steel Sections-Channels;
- (c) Specification for Rolled Steel Sections-Angles;
- (d) Code of Practice for Safety and Health Requirements in Electric and Gas Welding and Cutting Operations; and
- (e) Code of Practice for Resistance Spot Welding for Light Assemblies in Mild Steel.

The Committee also approved of the issue for wide circulation and comments, the Draft Indian Standard Specifications for

- (a) Rolled Steel Sections-Tee Bars; and
- (b) Rolled Steel Sections-Bulb Angles.

6. Formulation Of Standard Specifications And Codes Of Practice

Details of the specifications and codes of practice on which work was undertaken as a part of the Steel Economy Programme are given below:

Standards For Structural Sections

- (a) Rolled Steel Beams;
- (b) Rolled Steel Channels;
- (c) Rolled Steel Angles;
- (d) Rolled Steel-Tee Bars;

- (e) Rolled Steel-Bulb Angles;
- (f) Tubular Sections;
- (g) Cold Formed Light Gauge Steel Sections;
- (h) Special Steel Sections for Structural Use; and
- (i) Rolled Steel Piling Sections.

Design Codes

- (a) Code of Practice for Use of Structural Steel in General Building Construction;
- (b) Code of Practice for Use of Cold Formed Light Gauge Sections in Structures;
- (c) Rules for the Design, Construction, Erection, Testing, Operation, Maintenance and Inspection of Cranes and Hoists;
- (d) Code of Practice for Pressed Steel Tanks;
- (e) Code of Practice for Design, Fabrication and Erection of Mild Steel Tanks for Storage of Oil;
- (f) Code of Practice for Design, Fabrication and Erection of Steel Tanks; Standpipes, Reservoirs and Elevated Tanks for Water Storage;
- (g) Code of Practice for Gas Storage Tanks;
- (h) Code of Practice for Use of Steel Tubes in General Building Construction;
- (j) Code of Practice for High Strength Bolting in Structures;
- (k) Code of Practice for Light Weight Open Web Steel Joint Construction;
- (m) Code of Practice for Use of Steel in Overhead Transmission Line Towers;
- (n) Code of Practice for Use of Steel in Radio Masts; and
- (p) Code of Practice for Use of Steel in Temporary Construction.

Welding Codes And Standards

- (a) Glossary of Terms Relating to Welding and Cutting of Metals;
- (b) Scheme of Symbols for Welding;
- (c) Specification for Covered Electrodes for Metal Arc Welding of Mild Steel;
- (d) Classification and Coding of Covered Electrodes for Metal Arc Welding of Mild Steel and of Low Alloy High Tensile Steels;
- (e) Code of Practice for Use of Metal Arc Welding for General Construction in Mild Steel;
- (f) Code of Practice for Training and Testing of Metal Arc Welders;
- (g) Code of Practice for Safety and Health Requirements in Electric and Gas Welding and Cutting Operations;
- (h) Code of Practice for Resistance Spot Welding for Light Assemblies in Mild Steel;
- (j) Code of Practice for use of Welding in Weldments (built-up sections for use in place of steel castings);
- (k) Code of Practice for Use of Welding in Boilers;

(m) Code of Practice for Use of Gas Welding in Structural Work;
(n) Code of Practice for Use of Welding in Structures Subject to Dynamic Loading—Bridges;
(p) Procedure Code for Electric Arc Welding;
(q) Code of Practice for Inspection of Welds;
(r) Code of Practice for Use of Welding in Pipelines;
(s) Code of Practice for Resistance Steam Welding for Light Gauge Sections; and
(t) Code of Practice for Use of Welding in Tubular Construction.

Standards For Corrosion Protection

(a) Specification for Corrosion Protection of Light Gauge Construction; and
(b) Specification for Performance Tests for Protective Scheme Use in Corrosion Protection of Light Gauge Steel.

The position as on December 31, 1956 regarding the progress of these standards is given in Annexure III.

7. Handbooks And Other Aids For The Implementation Of Standards

Preparation of handbooks and other publications mentioned below form an important part of the ISI's work on Steel Economy:

- (a) Handbook of Properties of Structural Steel Sections;
 - (i) Properties and Dimensions of Structural Shapes for Designing and Detailing;
 - (ii) Rolling Mill Practices;
 - (iii) Miscellaneous Data for Estimating and Designing;
 - (iv) Estimating and Detailing Information;
 - (v) Allowable Loads on Rivets, Bolts and Constructions; and
 - (vi) Miscellaneous Data and Mathematical Tables.
- (b) Handbook for Structural Engineers (including Typical Designs and Drawings).
 - (i) Functions of Good Design in Steel Economy;
 - (ii) Economy of Steel through Choice of Fabrication Methods;
 - (iii) Choice of Materials and Steel Economy Programme;
 - (iv) Steel Beams and Plate Girders;
 - (v) Steel Columns and Struts;
 - (vi) Roof Trusses in Steel;
 - (vii) Design of Welded Connections;
 - (viii) Single Storey Industrial and Mill Type Buildings in Steel;
 - (ix) Multi-storeyed Steel Framed Structures for Offices and Residences;
 - (x) Steel Transmission Towers;
 - (xi) Steel Work in Cranes and Hoists;
 - (xii) Large Span-Shed Type Buildings in Steel;

- (xiii) Design of Storage Tanks;
- (xiv) Design of Bunkers;
- (xv) Use of Tubes as a Structural Material;
- (xvi) Structural Use of Light Gauge Sections;
- (xvii) High Strength Bolting in Steel Structures;
- (xviii) Light Weight Open Web Steel Joint Construction;
- (xix) Design of Rigid Frame Structures in Steel;
- (xx) Application of Plastic Theory in Design of Steel Structures; and
- (xxi) Commentary on the Code of Practice for Use of Structural Steel in General Building Construction.
- (c) Handbook for Welders.
- (d) Handbook for Welding Inspectors and Supervisors.
- (e) Handbook for Welding Engineers Typical Designs and Drawings.

Progress of this work as on December 31, 1956, is indicated in Annexure III (Page 42).

8. Experimental Investigations

(i) During the course of their work on various standards specifications and codes of practice, the committees entrusted with the steel economy work came across a number of problems on which data are not available or are incomplete. Such items, after scrutiny by the Subcommittee (BDC 7:4) and the Sectional Committee (BDC 7), were submitted to the Council of Scientific and Industrial Research with the request that financial and other assistance, as was required for arranging these investigations, may be made available. Various institutions in India were approached in connection with the investigations, and the items as included in Annexure IV (page 45) have so far been allotted to the Institutions mentioned against them.

(ii) At a meeting held on September 22, 1956, the Board of Engineering Research of the Council of Scientific and Industrial Research, accepted and allotted to the National Physical Laboratory, an extensive programme of investigations relating to the production and use of cold-formed light-gauge structural sections.

(iii) In consultation with the Government Test House, the Directorate of Research of the Ministry of Railways, and the Technical Development Establishment Laboratories, Kanpur, details of an extensive programme relating to corrosion protection of steel structures with particular reference to light-gauge steel are being worked out. This programme includes investigations required in connection with the classification of areas in India on the basis of corrosiveness.

9. Certain Important Aspects Of The Steel Economy Programme

Hot Rolled Steel Sections: Early in 1954, when the work on the re-design and standardisation of hot rolled steel structural sections was initiated, production of

structural sections in India was mainly through two organisations, namely, the Tata Iron and Steel Co. Ltd. (TISCO) and the Indian Iron and Steel Co. Ltd. (IISCO). The programme at that time was, therefore, confined to the redesign of the limited variety of sections producable with the existing equipment at these two factories. The decision of Government to set up the Hindustan Steel Ltd., at Rourkela, did not necessitate any change in this programme since the production of that company was to be confined to flat products. In early 1955, however, it came to the notice of the committees that plans for the installation of two new factories, one at Bhilai and the other at Durgapur, were also being considered and it was possible to arrange for the production of a wider range of structural sections through them. TISCO and IISCO had also decided on large expansion programmes, including additional mills and improvements to existing ones. Shortly afterwards, came the decision of the Government about the changeover to the metric system. These developments necessitated a complete reorientation of the work on standardisation of hot-rolled sections. It also became possible for the Indian Standards to cover more effectively the wide field of requirements of steel sections through the provision of a number of types of beams and channels of both lighter and heavier proportions.

Higher Efficiency Sections: In the case of beams and channels, the new sections being standardised give increased efficiency of 5 to 15 per cent when compared to the sections rolled hitherto in India. The new Indian standard sections compare favourably with those of other countries and, in most cases, are an improvement on them. In the case of Angles, Tees, etc., the new standards have achieved rationalisation without affecting economy in use. All the structural sections are standardised in the metric system.

Co-ordination With The Commission Mixte Des Aciers (CMA) and the European Coal & Steel Community (CECA): Early in 1955, it came to the notice of the ISI that on the initiative of the Commission Mixte des Aciers (CMA) of Bilguime Luxembourg, the countries of the European Coal and Steel Community (CECA), had launched a scheme of re-design and standardisation of hot-rolled structural sections. Since the aim of this scheme was the same as that of the ISI, as regards redesign of structural sections, exchange of information between the ISI and the CMA and CECA, has been maintained. It is gratifying to note that the steps along which the work of the CMA and CECA has developed, closely follow the steps taken by the ISI committees.

Basic Design Code: The basic code for the use of steel in general building construction is now under print. In this code, the committees have tried to prescribe for India, standards in line with present day developments and practices generally accepted in other countries. The

increased efficiency in use of steel available through the adoption of this code varies from organisation to organisation depending on the practices are largely modern in approach, the advantages would be small. But, in the large number of cases where outdated and unduly conservative design practices have so far prevailed, the adoption of the Indian Standard Code could yield considerable savings in steel.

Welding: Before the use of weldings can be increased, it is vital that the quality and dependability of welded designs and welding should be improved. Specifications and design codes alone were considered as insufficient to improve these aspects and to create greater confidence in welding. The handbooks for welders, inspectors, supervisors, etc., however, are expected to be of great help in this connection.

Interest in Other Countries of the Commonwealth: At the 1951 meeting of representatives of the National Standards Bodies of the Commonwealth Countries, considerable interest was shown in the Steel Economy Programme which the ISI was proposing to launch. The Commonwealth countries have, therefore, been kept informed of the developments of this programme. At the Commonwealth Standards Conference, to be held in Delhi in January-February 1957, a technical session is to be devoted to the discussion of various aspects of the Steel Economy Programme.

Interest in Latin American Countries: The Steel Economy Programme of the ISI has been of particular interest to the countries of Latin America whose industrial developments and problems are in many respects, similar to ours. At the request of the Economic Commission for Latin America (ECLA), the ISI presented, at the meeting of the Experts on the Steel Making and Transforming Industries held at Sao Paulo, Brazil, from October 15 to 28, 1956, a detailed paper on ISI's work on standardisation in the production and use of rolled steel sections in India. The ISI paper was presented during the integration discussions on October 25. Since conditions in most Latin American countries are parallel to those which exist in India (viz., a relatively small steel industry, large excess demand, limited foreign exchange, active economic development efforts, etc.), the paper was of immediate and direct interest to them. Furthermore, it provided an indication of what might be done as a partial answer to the existing and anticipated future steel shortage. There was considerable discussion following its presentation. At the end of the discussion, the meeting passed a resolution to establish steel economy programmes within the various Latin American countries under a joint committee to be set up by ECLA.

Implementation

General: As mentioned earlier in this report, the Steel Economy Programme of the ISI includes the pre-

paration of not only standard specifications and codes of practice but also of handbooks and other publications as aids to implementation. The effectiveness of the Steel Economy Programme, in terms of actual savings in material and money would depend on the extent to which the particular aspects of the implementation could be followed up. The following paragraphs bring out certain of these aspects.

A co-ordinated plan for the works-cum-field implementation of the Steel Economy Programme has to be formulated and worked. The Government of India and the Planning Commission may consider the setting up of a suitable Body with powers to co-ordinate and effect this implementation. The Structural & Metals Division Council (SMDC) and the committees of the ISI responsible for the formulation of the standards, procedures etc., which are to be implemented, should be closely associated with this Body.

Hot-rolled Sections: The implementation of the Indian Standards for Hot-rolled Sections, does not present any serious difficulties. TISCO in their new mill and the steel mills at Bhilai and Durgapur, are expected to start production with the Indian standard sections. In the preparation of the standards for sections, the capabilities and limitations of these mills have been particularly kept in view. As regards the existing mills of TISCO, IISCO and Mysore, the changeover to new sections would be on a programme phased over a period of time.

Cold-formed Light-gauge Sections: For production of cold formed light-gauge sections, strip steel of properties and widths covering the full requirements would become available in India only after production starts at Rourkela in 1958. Hot rolled strip up to $12\frac{1}{2}$ " in width will be available from the Tata Iron and Steel Co., Ltd., if sufficient orders for structural quality material are placed. The immediate implementation of the standards for cold-formed sections, therefore, depends on the imported strip being made available and subsidised to the same extent as mild steel of other categories. It should be possible to give an impetus to the setting up of production units for the manufacture of cold-formed sections through encouragement by Government by way of loans etc., and also through consuming departments of the Central and State Governments accepting tenders for structures made from cold-formed sections, on a competitive basis, as compared to structures made from hot-rolled sections. The savings in steel through use of cold-formed light-gauge sections in certain structures will be as large as 40 per cent. By using strip steel from indigenous production or imported strip subsidised to the same extent as imported mild steel, there will be appreciable savings in overall cost also.

Steel Tubes: It is understood that the indigenous capacity for steel tubes up to 3 in. diameter leaves a

surplus which could be diverted for structural use and further that the indigenous production of tubes upto 6 in. diameter is expected to start shortly. With the same type of encouragement as mentioned in para 10.3 above, it should be possible to popularise the use of steel tubes as a structural material.

Efficient Designs: The wide scale adoption in India of IS:800-1956 Code of Practice for use of steel in general building construction, would lead to considerable savings in steel. Since the Central and State Governments have to set the pace in this connection, their co-operation is essential. With this co-operation, there is no doubt that the private agencies would also accept this for their design offices.

The extent to which a code of practice could lead to a satisfactory design, greatly depends on the care and effort applied in the preparation of designs using the code. It is a matter of general opinion that there is considerable scope for improving the standard of design procedures in most organisations. A possible method by which this may be achieved is through a technical check on demands for steel to see that they are based on efficient and economic designs. This check may be enforced at the organisational level and, in some cases, also by the Iron and Steel Controller.

Untested Steel: An appreciable tonnage of steel meant for structural purposes goes, at present, under the category of 'untested steel'. Since the strength property of this steel is not guaranteed or definitely known, it is not possible to use this steel efficiently by allowing stresses and loads to the maximum safe limits. The Structural Steel Sectional Committee (BDC 7), has recommended that a separate standard should be drawn up for 'Commercial' quality steels which, even though not up to the requirements of the normal 'tested' quality steels, are usable, provided their physical and chemical properties are known and guaranteed.

Apart from this, consideration deserves to be given as to how far it is possible to reduce the tonnage of steel which has to be classified as not coming up to the present standards for structural steel.

Welding: There is already in India, a growing appreciation of the advantages which welding could afford in many cases of structural steel fabrication. But the natural reluctance of established fabricators to change over from riveted to welded fabrication procedures is even now acting as a retarding factor on this progress. An increased insistence by Government Organisations for welded fabrication could improve the situation. Apart from this, new fabricating organisations springing up in the private and public sectors, should be encouraged to set apart an appreciable proportion of their capacity for welded fabrication.

In order to implement the standards for welding and for popularising welding in India, it is also necessary that

(a) The Government should help in making available more freely suitable wire for the manufacture of electrodes in this country;

(b) As transformers suitable for welding sets are not produced in India at present, the import of such transformer welding sets should be permitted freely and the import duty on such transformer sets should be reduced in order to make them available more cheaply;

(c) The import of oxygen cutting equipment should also be permitted freely and the import duty on such equipment should be reduced in order to make available in the country equipments of satisfactory quality at reasonable prices;

(d) Technical institutions and universities in India should expand the facilities for the training of welding engineers, who would have a sound knowledge of both practical and theoretical aspects of welding; and

(e) Basic trade schools and other facilities for training welders should be established in various parts of the country. The procedure and syllabus for training and testing welders should be in accordance with the Indian Standard on the subject. The certification of welders should be arranged through a centrally-controlled organisation.

Research: Inspite of the fact that the CSIR had extended its full support to the whole programme of research drawn up by the Structural Steel Research Sub-Committee (BDC 7:4), the progress achieved so far is not quite satisfactory. It has been possible to get accepted for research only 10 out of 21 of the items considered as requiring immediate attention for research. Of the various institutions in India approached with a request that they may take up these investigations, only 8 have found it possible to take up any item. Since the large scale development of research in steel structural engineering is an essential requirement for placing the steel industry in India on a sound footing, thought should be given as to how far the present position can be improved.

This need is all the greater, since a very large expansion in steel production and consumption is planned during the Second Five-Year Plan and thereafter.

The steel structural engineering and the welding sections of the research laboratories in India require to be strengthened in order to enable to meet the country's immediate demand for expansion of experimental research in these fields.

II. Structure And Metal Division Council (SMDC)

The considerable amount of work done under the Steel Economy Programme of the ISI, has highlighted the need and advantage of co-ordinating the production and use aspects in the standardisation of metals. This has led to the setting up of the Structural and Metal Division Council (SMDC) of the ISI. This new Division Council which was inaugurated on October 26, 1956, with Sir Jehangir Ghandy as Chairman will hereafter deal with the metallurgical, structural and other use aspects of metals and connected subjects.

12. Technical Assistance

The services of Messrs. Ramseyer and Miller, Inc., Iron and Steel Industry Consultants, New York, were made available by the United States Technical Co-operation Mission in India, to assist the steel economy work of the ISI from early 1954. This first agreement with these consultants, was for a period of two years from February 4, 1954. Arrangements were completed to continue their services for an additional period of one year upto February, 1957, with provision for further extension of one year up to February, 1958. In addition to the consultative service, made available from the New York Office of the Consulting Engineers and selected specialists in the United States, a resident engineer of the Consultants has been posted at Delhi and is co-operating in the day-to-day work of the ISI Directorate on the Steel Economy Programme.

TECHNICAL TRAINING COMMITTEE, 1956—REPORT

New Delhi, Development Commissioner (Small Scale Industries),
Ministry of Commerce and Industries, 1957. 91p.

Chairman : Shri P.B. Advani.

Members : Dr. E. Staley; Development Commissioner for Small Scale Industries to the Government of India; Shri R.V. Ramiah.

Member-Secretary : Shri L.N. Renu.

APPOINTMENT

Small Scale Industries, for the development of which a sum of Rs. 61 crores has been earmarked in the Second Five-Year Plan, would, it is estimated, provide employment to additional 1.6 lakh workers. The break up of this figure into skilled, semi-skilled and unskilled

categories is not available, nor is there any information on the supply position of the first two categories. The Small Scale Industries Board has been concerned about shortage of technical personnel which may seriously handicap the achievement of targets of employment and production laid down in the plan, and, after discussing this problem at more meetings than one decided on a detailed study of short and long-term measures for devising a planned programme of training technical personnel. Accordingly, at its 7th meeting held on September 17 and 18, 1956, it appointed a Committee.

TERMS OF REFERENCE

The Committee was directed to "examine and report on short term and long term measures which should be taken for the training of skilled workers and supervisors for small industries". For this purpose the Committee was desired inter alia to

(i) assess the demand for such workers based on normal wastage and expansion of industrial development during the Second Five-Year Plan;

(ii) suggest the types and numbers of special institutions to be extended or newly established;

(iii) suggest the classes and types of factories suitable for admission of boys and apprentices for training as skilled workers, conditions under which such training should be taken to ensure the requisite number of boys as apprentices to the factories in question;

(iv) make proposals for organisation of evening classes for apprentices;

(v) make an approximate estimate of cost of proposals; and

(vi) take into consideration all other incidental and connected matters.

CONTENTS

Introductory: Assessment of Demand for Skilled and Semi-skilled Workers; Technical Training Institutions; Apprenticeship and In-plant Training in Factories; Expansion Training Programme; Immediate Training Programme for Small Industries Sector; Conclusions; Appendices from I to VIII.

RECOMMENDATION

Demand Of Small Sector

The demand for skilled and semi-skilled workers for the small industrial sector for expansion, replacement and normal wastage, during the Second Plan period, is estimated at 1.74 lakhs.

Because the existing programme for training falls far short of the total demand of industries, the small industrial sector runs the risk of losing its skilled and semi-skilled workers to the large sector unless adequate arrangements are made for the latter also.

Demand Of Large, Medium And Small Sectors

Arrangements should be made for training 6.35 lakh persons for skilled and semi-skilled jobs to meet the total expansion and replacement demands of the large, medium and small scale industries sectors after allowing for wastage during training.

Institutional Training

Arrangements have been made for training two lakh persons in technical training institutions under the existing and proposed programmes. Half of these may be expected to secure direct employment in factories and the other half may be available for further training as apprentices.

No Spare Capacity In Existing Institutions

No spare capacity would be available for running additional second shifts or evening classes at the existing technical training institutions after meeting the requirements of expansion programmes of the Ministries of Education and Labour and Employment.

Expansion Of Institutional Training

Following the example of industrially advanced countries, 20 per cent of the total number of apprentices may be recruited from technical schools. As the present institutional training programme will fall short of meeting this demand, the National Council for Training in Vocational Trades should examine the possibility of expansion of institutional training programme to provide an additional 20,000 seats, preferably under the D.G.R.&E. programme for training certificate holders. Of these, arrangements should be made to provide 4,000 seats during 1958-59, an additional 6,000 seats during 1959-60 and the remaining 10,000 seats during 1960-61.

Present Apprenticeship Programme

About 67,000 apprentices would be accepted for training under regular apprenticeship schemes during the Plan period under the existing and proposed programmes.

Programme Falls Short Of Demand

Assuming that one lakh out of the persons going through technical training institutions could be absorbed directly by the factories, the balance left for coverage by apprenticeship training would be 5.35 lakhs. The present apprenticeship programme, therefore, falls far short of the requirements.

Unorganised Training by Factories

Industry is meeting the remaining demand by unorganised training arrangements. This will lead to lowering of standards of workers available for expansion and replacement.

Replace Unorganised Arrangements By Organised Courses

A planned and properly organised training programme should, therefore, replace the unorganised training arrangements and necessary facilities provided to factories for this purpose.

Classes And Types Of Industries

The classes and types of industries and trades which will be suitable for admission of apprentices for training as skilled workers may be seen in tables 2(a) and 2(b).

Up To Five Per Cent Of The Labour Force First

Programmes for apprenticeship training should be expanded to the extent of five per cent of the labour force in large, medium and small factories and apprenticeship capacity of 93,000 seats developed in the first instance under the guidance of the National Council for Training in Vocational Trades. Of this, arrangements for 45,000 seats should be completed by the end of the current year (1957-58), another 18,000 seats developed during 1958-59, and 30,000 additional seats during 1959-60.

Up To 11·5 Per Cent Of The Labour Force Ultimately

An additional 1·21 lakh seats should be developed during 1960-61 bringing the total number of seats for training of apprentices to 2·14 lakhs, which is 11·5 per cent of the labour force.

Average Period Of Training

The average period of training may be brought down from 2½ years to two years to meet the present exigency.

Conditions Under Which Training Should Be Provided

Factories should be assisted to set up separate sections for training with additional equipment and suitably qualified staff attached to the production workshops to enable them to accept apprentices up to 11·5 per cent of their labour force.

Phasing Of Establishment Of Training Sections

Arrangements should be initiated to establish training sections with 30,000 seats during 1958-59, an additional 40,000 seats during 1959-60, and the remaining 51,000 seats during 1960-61.

Measure To Ensure Admission Of Requisite Number Of Apprentices

It will be necessary to introduce a compulsory training scheme under an Act of Parliament, whereby factories will be required compulsorily to admit a prescribed percentage of their total labour force for apprenticeship training. Compulsion may be introduced by stages, industry by industry and the engineering industry should be in the first set to which compulsion should apply.

Training Of Instructors

There is a great shortage of instructors for both institutional schemes as well as apprentice schemes. The National Council for Training in Vocational Trades should prepare a phased programme for training of instructors which should receive a high priority and arrangements should be made for training of instructors which should receive a high priority and arrangements should be made for training at least 3,000 instructors during 1958-59, 6,000 instructors during 1959-60, and 7,400 instructors during 1960-61.

Day Or Evening Classes

Day or evening classes would be necessary for apprentices to acquire knowledge of theory of their crafts. Preference should be given to day-time classes which the apprentices attend one day a week. An additional number of 14,000 seats would be required for running day-time classes for apprentices. Of these arrangements for 1,500 seats should be made during 1958-59, 2,500 additional seats during 1959-60 and the remaining 10,000 seats during 1960-61.

Total Cost Of Expansion Proposals

The total non-recurring cost of the expansion proposals, excluding the cost of the administrative set-up at the Centre and the cost of training instructors, would be about Rs. 58 crores and the annual recurring cost about Rs. 28·5 crores.

Immediate Programme

An immediate programme of apprenticeship training can be started at the Common Facility and Pilot Workshops attached to the Small Industries Service Organisation of the Ministry of Commerce and Industry for training (i) 1850 skilled and semi-skilled workers, (ii) 200 instructors, and (iii) 170 persons who can fit in managerial jobs or as entrepreneurs.

Arrangements should also be made for training an additional number of 250 Degree and Diploma holders per year by placing them in small factories where they could learn all aspects of manufacture of particular items to qualify them to become supervisors of entrepreneurs.

Additional equipment and staff should be provided in these centres to allow them to increase the number of trainees in art skilled and semi-skilled jobs to 5850.

Cost Of Immediate Programme

The non-recurring cost of this programme would be about Rs. 240 lakhs and the recurring cost about Rs. 86 lakhs.

Training Programme Essential For Fulfilment Of Second Plan Targets

We are strongly of the view that unless effect is given

to these proposals and a large number of technically trained men is made available, the targets of employment and production laid down for the small scale industries under the Second Plan are not likely to be met.

It will be an appreciable time before trained men become available under the apprenticeship and institutional training schemes proposed by us. Such of these men who do not complete training in time for the Second Plan period will be available for the Third Plan period.

Assess Requirements Of Third Plan

To train men is a time-consuming process. We accordingly strongly recommend that the National Council for Training in Vocational Trades should, in consultation with the Planning Commission take in hand as soon as possible the work of assessing the probable requirements of skilled and semi-skilled men in the different trades for the Third Plan period and make timely arrangements for their training.

COMMISSION FOR THE ESTABLISHMENT OF A HOTEL TRAINING CENTRE IN INDIA, 1956—REPORT

New Delhi, Ministry of Transport, 1956. 379p., XIII p. (Mimeoographed)

One-Man
Commis-
sion : Shri John Fuller.

APPOINTMENT

The Establishment of a Hotel Training Centre in India was constituted under the Ministry of Transport in October 1956.

TERMS OF REFERENCE

- (a) To ascertain whether a genuine need exists for a hotel training centre;
- (b) Ascertaining the opinions in the hotel industry itself regarding staff training;
- (c) Observing the working conditions generally in hotels in India and thus the type of training required; and
- (d) To consider possible locations for a hotel training centre.

CONTENTS

Summary of Recommendations; Part 1: Introduction (Scope of Tour; Purposes of the Tour); Part 2: Tour Report (General Impression of Indian Hotel Industry, Luxury and Tourist Hotels; Other Hotels and Restaurants; Circuit House, Dak Bungalows, etc.; Outside Catering; Railway Catering; Meetings with Hoteliers and Hotel Associations; Conditions of Work and Career Prospects; Existing Facilities for Training in Catering; General Conclusions following Tour); Part 3: Training Report (Type of Training Required; Location of Training Centre; Adaptation of Hotel as Training Centre; Standard of Equipment etc.; Scope of Training and Type of Student; Supervised Hotel Training Following the Course; Subjects of the Course; Languages; Syllabus of

Training; Staffing the School; Potential Teaching Staff; Recruitment of Students, Qualifications of Students; Women Students; Non-Teaching Staff, Possible Cost of Establishing Hotel Training Centre; Miscellaneous Costs); Part 4: Conclusion; Part 5: Appendices.

RECOMMENDATIONS

Decor and furnishing of hotels should draw more widely on Indian themes, styles and materials.

It should be the aim eventually to abolish the multiplicity of different types of staff for room cleaning and maintenance on hotel floors.

Training in waiting and cookery should be coupled with an attempt to recruit bearers of better background and higher personal standards.

There should be greater attention devoted to the planning and equipment of hotel kitchens.

Effort should be encouraged (if not specific legal requirement) of the wearing by cooks, bearers and other food handlers of adequate protective clothing maintained in a clean condition.

The compilation should be encouraged of an authoritative repertory of Indian dishes, standardising spellings and recipes in order to help evolve a "classic" Indian cuisine.

Adequate accommodation should be available for tourists in State Circuit Houses and Guest Houses when once a State has agreed to provide these facilities.

The activities of outside caterers should be regulated (particularly those coming in contact with the tourist trade) especially from the point of view of hygiene.

Training should be directed towards railway and other travel catering generally and not only towards hotels and restaurants.

The hotel industry itself should aid recruitment of

better staff by offering reasonable minimum wages to trainees and fair opportunities for advancement.

The industry, once training has been established, should reorganise by additional pay proper qualifications in both craft and administrative fields work.

There should be propaganda directed to the general public by both industry and possibly the Government emphasising the good status of hotel careers.

A Hotel Training Centre should be established without delay.

Such a hotel training centre should be residential and should concentrate on training in the hotel and directly associated with tourist and commercial fields, i.e. should not be linked with "welfare" catering training.

Training should primarily be directed towards full-time courses for potential managers.

The facilities of the school should additionally be used to aid in craft training, for example, of cooks and bearers and for refresher courses for other categories of staff. Priority should be given to short courses for the staff of State hotels, Guest Houses and Circuit Houses.

Part-time craft training in local centres should be a long-term objective of the hotel industry in collaboration with Government and educational authorities.

Consideration should be given to the ultimate establishment of apprenticeship schemes for craft workers in the industry.

The most desirable location for a hotel training centre would be in the centre of a progressive area of hotel activity such as Bombay.

Owing to the pressure of accommodation in large cities and the urgent need for a hotel training centre, it is suggested that as an immediate first step, an existing hotel, e.g. the Hotel Cecil at Agra, should be adapted as a training centre.

The training centre should be a residential establishment.

The centre should be equipped to the highest hotel standards in every department.

The principal course should be a full-time two-year course in hotel management combined with a period of two years supervised continuation training in the industry.

The course itself and the subsequent continuation training should have a strong content of practical craft work particularly in kitchen and restaurant.

Students recruited for this full-time training in hotel management should be either graduates of a University or have passed the University's intermediate examination.

Students gaining post-centre training in hotel management should be paid appropriate wages by employers who should have normal disciplinary control over them as employees.

Consideration should be given to students entering for recognised professional and other examinations of

examining bodies of known prestige in the United Kingdom.

The Principal appointed should be an experienced hotelman, desirably with teaching experience and should be appointed at least six months before the opening of the training centre.

The Principal should have freedom to evolve his own detailed syllabus but subjects should be covered broadly as outlined in Appendix E.

There should be a strong emphasis throughout the training of the need for graduates of the centre to augment their period of supervised practical training by further years of experience in hotel departments before aspiring to management.

Initially teaching staff from the Principal downwards should be recruited from experienced hotelmen with teaching experience from outside India and the maximum period of contract should be offered to all teachers except in the case of those, if any, who are lent from their own teaching appointment abroad.

Salaries for staff recruited from overseas should compete favourably with rates obtaining in similar appointments in Europe.

The training centre should collaborate with neighbouring educational establishments in covering certain subjects such as Science and French.

Eventually the staffing of the school should be Indian.

There should still be encouragement given to students with exceptional aptitudes to gain experience in Europe, particularly as such persons may obviously be considered as potential teaching staff for an Indian hotel training centre.

Initial recruitment to the centre should be not less than 16 students and not more than 32 students per annum and that preferably the rate of recruitment should be 32 per annum for the first few.

Entry requirements for students as regards specific subjects should not be too rigid and the yardstick should be good general education, ability to profit by the course and personal aptitudes for a hotel career.

Candidates for hotel training should be required to attend for personal interview by the Principal before acceptance.

Encouragement should be given to the participation of women in the operation of hotels and in their training as students and, possibly, teachers.

The school should be maintained and conducted as a residential hotel (students and staff being "guests") and the work should be carried out by students themselves. It is strongly recommended that all duties including cooking, service and cleaning in all departments should be undertaken by the students themselves.

The sum of Rs. 3,00,000 should be earmarked as a possible cost for equipping the restaurant, kitchens and ancillary kitchen sections of the hotel training centre

in addition to the capital cost of the building itself and in addition to the cost of decorating and furnishing.

Rs. 3,69,000 should be earmarked as a possible recurring cost for conducting the school in the first few years.

The cost of training should be off-set by levying reasonable tuition fees and charges for residence but government should be prepared to subsidise training in order that the fees charged should be sufficiently low to attract recruitment.

Recovery of cost by the sale of food in the restaurant to the general public should also be encouraged.

The hotel industry should be encouraged to contribute towards the cost of operating the school.

Hotel proprietors and companies should be encoura-

ged to sponsor training of individual students acceptable to the school, such students being linked by a formal agreement to the hotel concerned.

The hotel industry should be closely associated with the management of the school through the formation of an advisory committee or board of governors.

The work of the school should be directed at improving staffing throughout the industry and not merely of top class hotels.

The Hotel Federation should be given the opportunity of studying this report with a view to inviting their comments.

The Government should regard the hotel industry as an industry and as one capable of development as part of a valuable foreign currency earning tourist industry.

SANSKRIT COMMISSION, 1956—REPORT

Delhi, Manager of Publications, 1958. 439p.

Chairman : Dr. Suniti Kumar Chatterji.

Members : Shri J.H. Dave; Prof. S.K. De; Shri T.R.V. Murti; Dr. V. Raghavan; Asthana Vidwan Panditaraja V.S. Ramachandra Sastry; Shri Vishva Bandhu Shastri.

Secretary : Dr. R.N. Dandekar.

APPOINTMENT

The Sanskrit Commission was constituted under the Ministry of Education vide their Resolution No. F. 34-1/56-A-1, dated October 1, 1956.

TERMS OF REFERENCE

(i) To undertake a survey of the existing facilities for Sanskrit Education in Universities and non-University institutions and to make proposals for promoting the study of Sanskrit, including research; and

(ii) To examine the traditional system of Sanskrit Education in order to find out what features from it could be incorporated into the modern system.

CONTENTS

Introduction; Historical Retrospect; Present Situation; Sanskrit and the Aspirations of Independent India; Sanskrit Education; Teaching of Sanskrit; Sanskrit Research, Manuscripts; Sanskrit University; Other Questions Concerning Sanskrit; Administration and Organisation of Sanskrit Education and Research; Conspectus and Recommendations; Epilogue; Appendices I to IX.

RECOMMENDATIONS

Sanskrit Education

1. Sanskrit In Secondary Schools

In view of the importance of Sanskrit for an adequate understanding of the culture of India; in view of its intimate relation with the modern Indian languages; in view of the desirability of every Indian student having an opportunity to study it; in view of the fact that the Secondary School Education has not only to be complete in itself and well-rounded (as many students would be discontinuing their formal for the further study of Sanskrit in Colleges and Universities); and in view of the various other points made out in Chapter IV; this Commission recommends that such provision should be made in language studies in the Secondary School curriculum as would guarantee for Sanskrit a secure place therein as a language which all students would be able to take up, and that, for this purpose, the necessary modifications should be made in the Three Language Formula which has been already announced by the Central Government and which is being implemented by the States.

The Commission urges upon the Government the need for making an adequate provision for the study of Sanskrit in the scheme of general education, in Schools and Colleges, as otherwise the liberalisation of Sanskrit Education which has taken place in modern times will receive an undesirable set-back (III.49)*.

* The Roman figure indicates the number of the Chapter and the Arabic figure that of the paragraph.

The Commission recommends that this provision should be such that, in some way or other, the young Indian pupils, with such exceptions as may be necessary (V.15), would automatically study Sanskrit;

That, for this purpose, compulsory provision for the teaching of Sanskrit, unaffected by arguments of economy or number of students taking Sanskrit, should be made in all the Schools in the country (V.32); and

That arrangements of groups of subjects should be so designed as not to debar such students as want to study Sanskrit from doing so (V.33).

The Language-Formula

The Commission recommends that, in Secondary Schools, all Indian students should be taught three languages, namely, (1) the mother-tongue (or the regional language), (2) English, and (3) Sanskrit (or, in some special cases, some other classical language as equivalent to Sanskrit, e.g. Arabic, Persian, Old Tamil, Latin or Greek) (V.25, 15);

That Hindi should be taught at the College stage to such students as desire to enter all-India services (V.25); or, if it is to be taught in the School, the three-language scheme recommended by us above should be so modified that Hindi, or, for Hindi-speaking students, some other modern Indian language, preferably South Indian, is allowed as an alternative to English (V.25).

In any scheme of adjustment with Hindi, the Commission is against providing Hindi as an alternative to Sanskrit.

The Commission recommends the following pattern for the study of languages in Schools: (i) Classes 1-5: only the mother-tongue with voluntary extra-curricular lessons in Sanskrit Subhasitas, etc.; (ii) Class 6: the mother-tongue and English, the extra-curricular lessons in Sanskrit Subhasitas etc., being continued; and (iii) Classes 7-11: the mother-tongue (reduced), English and Sanskrit (V.27). In this connection, the Commission thinks that it is not advisable to add the burden of Hindi as the fourth language at the School stage. The best results, in the opinion of the Commission, will be achieved if Hindi is made a subject of study at the College stage, on the basis of a knowledge of the mother-tongue and Sanskrit (V.25).

If the Three-Language Formula, namely, the mother-tongue, English and Sanskrit (or the alternative formula, namely, the mother-tongue, Hindi or some other Modern Indian Language, and Sanskrit), as recommended by the Commission as its first choice, is not feasible in certain parts of the country, then, as a second preference the Commission recommends a Four-Language Formula, namely, the mother-tongue, English, and Hindi (or any other Modern Indian Language for Hindi Speaking students), plus Sanskrit [V.25 (2)].

As a third preference, the Commission favours a

course of four languages, namely, the mother-tongue, English and Hindi, plus Sanskrit in a composite course with the mother-tongue or Hindi or both, under certain specific conditions, namely, (i) that, at some stage, such a composite course must be made compulsory in lieu of the mother-tongue, (ii) that the duration of this course must not be less than 5 years, (iii) that the course must begin with an equal emphasis on the two languages, and emphasis on Sanskrit must increase in the higher classes, and (iv) that separate passing in each constituent language of the composite course must be made obligatory [V.25 (4), 28].

The Commission is of the opinion that it is quite practicable to adjust the study of the four languages (the mother-tongue, Sanskrit, English, and Hindi or any other Modern Indian Language for Hindi-speaking students) without there being any trace of burden, if the extraordinarily long course in the mother-tongue is pruned to some extent, if the simultaneous commencement of the learning of two languages is avoided by phasing their introduction, and if English and Hindi are treated as skill subjects and not as content subjects, as indeed they are meant to be treated (V.20, 21, 28, 29).

The preferences of the Commission in the matter of its recommendations are in the order as stated above.

The Commission is definitely against the suggestions made in some quarters that Sanskrit should be provided for out of school hours or as a non-examination subject [V.25 (3)].

The Commission is of the view that a course in Sanskrit in Secondary Schools of less than five years' duration will not be at all adequate as the necessary foundation for the further study of it at the College stage (V.27).

The Commission is against Pali and Prakrits being allowed as alternatives to Sanskrit at the School stage; at the same time, the Commission recommends that the study of the Prakrits should be made an obligatory part of the courses in special Sanskrit in the Universities and the Pathasalas. Provision should also be made for the Prakrits and Pali being taken as special subjects at the Graduate and Post-Graduate stages (V.31).

The Commission further recommends that, in addition to the provision for Sanskrit in the scheme of language studies, some account of the thought, culture and literary productions in Sanskrit should be included in the subject of Social Studies in the Secondary School Curricula.

2. The Traditional System Of Sanskrit Education And Learning

The Commission, agreeing with the view expressed by an overwhelming majority of witnesses, recommends that the traditional Pathasala system of Sanskrit education and higher studies should be continued and preserved

and recognised as an accepted form of education, like any type of school and college education.

The Commission recommends—

That the Pathasala system should be revitalised by re-organising the Pathasala courses with the introduction in them of some modern subjects like the mother-tongue, English, General Science including Mathematics, and Social Studies including Ancient Indian History and Culture (V.60-62), adequate care being taken to see that this introduction of the modern subjects does not result in lowering the standard of Pandit scholarships;

That these reorganised Sanskrit High Schools or remodelled Pathasalas, with their students studying mainly Sanskrit (for not less than 16 periods a week) and also some modern subjects as indicated above, should be on par with other High Schools, and their products be treated like S.S.L.C. students for purposes of employment or admission to further courses of study;

That the reorganised Pathasalas should be properly inspected by an adequate Inspectorate, which should see particularly whether proper provision is made in the Pathasalas for the teaching of the modern subjects;

That, where feasible, these reorganised Pathasala courses should be opened as Sanskrit Wings of existing general High Schools;

That these Sanskrit High Schools or remodelled Pathasalas should lead to Sanskrit Colleges; the former (Sanskrit High Schools or the two stages of Prathama and Madhyama of three years' duration each, corresponding respectively to Lower and Higher Secondary; and the latter (Sanskrit Colleges) comprising the Graduate and the Post-Graduate stages of Sastri (of three years) and Acharya (of two years) corresponding respectively to B.A. and M.A.;

That the products of the Sanskrit Colleges should enjoy the same prestige and status as those of the Colleges of Arts, Science, etc.;

That as the apex of the Pathasala system, Sanskrit Universities should be established as indicated in V.75-76 and IX.15;

That, apart from encouraging in every way all proper proposals for Sanskrit Universities from States and Private Foundations or Societies, the Central Government itself should give a lead by founding a Sanskrit University;

That, in respect of the traditional Sanskrit education in the Pathasalas, there should be a uniform system for all India, with the same standards, duration of courses, examinations and nomenclature of Sanskrit degrees and/or diplomas,

That, in the interim period, there should be established an equivalence in respect of the different Sanskrit diplomas current in the different parts of the country, as also an equivalence between the various stages in the

traditional Sanskrit education on the one hand and the stages in the University education on the other;

That this parity should comprehend also the scales and grades of pay, as between Pandit-Teachers and Graduate Teachers in the various cadres in Schools, Colleges and Universities; and

That Pandit-Teachers be given the same status as Graduate Teachers in respect of representation on the various University Bodies.

Other recommendations of the Commission relating to Pandits, Pandit-learning and Pathasalas are given subsequently.

College and University

The Commission recommends—

That, in the College course leading up to the Graduate and Post-Graduate Degrees, there should be provision for the study of Sanskrit under general as well as special and optional subjects;

That such of the Universities, as have not so far provided for the study of Sanskrit as a special or an optional subject for B.A. (Hons.) and M.A. Degrees, should make such provision available in their College or Colleges;

That no University in India should be without a Department of Sanskrit or a Chair in Sanskrit for the organisation and teaching of Sanskrit as a special subject for B.A. (Hons.) and M.A.; and

That, for facilitating the proper pursuit of such advanced study of Sanskrit under the special branch, the teaching of Sanskrit in the lower collegiate classes should be sufficiently strengthened.

Other recommendations of the Commission in respect of the collegiate study of Sanskrit are given subsequently.

4. Integration Of The Two Systems

The Commission is of the considered view that it is premature and not wise to make any forced attempt at an integration of the Pathasala and the University systems of Sanskrit Education into a single system.

The Commission, however, recommends a greater measure of cooperation between the two systems, helping the two to approximate each other steadily and gradually, so that a healthy and lasting integration of the two might naturally emerge at some future date.

The Commission recommends—

That, for this purpose, Pathasala Pandits should be employed in modern Colleges, Universities and Research Institutes to bring into these modern institutions the traditional method of intensive and line by line study and mastery of the texts, and, correspondingly, Sanskrit M.A.'s should be employed in higher grade Sanskrit Pathasalas to familiarise the Pandits and the students there with modern historical, critical and comparative methods.

That the various other ways set forth in the Chapters on Sanskrit Education, Teaching of Sanskrit, and Sanskrit Research for familiarising the Pandits with modern methods and the results of modern researches should be adopted;

That care should be taken to see that there is no hybridisation by bringing the two systems together in a superficial manner; and

That the integration of the two systems should be tried at higher levels by arranging for some Sanskrit Graduates of the Universities undergoing Pandit-training, and for Pandits, after the completion of their Sastraic study, undergoing training in modern methods.

5. Sanskrit And Other Indian Languages And Allied Subjects

The Commission recommends—

That, in view of the intimate relation of Sanskrit with the several Indian languages and the influence exerted on the latter by Sanskrit, the special study of all the Indian languages at the B.A. (Hons.) and M.A. stages should include a study of Sanskrit; and that, for this purpose, there should be prescribed at least one full paper in Sanskrit in all Degree and Post-Graduate courses in Indian languages;

That particularly in the case of Hindi, which, according to the Constitution, is to draw primarily from Sanskrit, a larger quantum of Sanskrit study, especially from a grammatical point of view, should be prescribed from the school stage onwards upto the M.A. stage;

That, in the syllabus of studies in the Degree and Post-Graduate courses in Indian Philosophy, Ancient Indian History and Archaeology, Indian Music, Indian Architecture, etc., provision should be made for a fair knowledge of Sanskrit and for the study of Sanskrit texts on Philosophy, of Sanskrit inscriptions, of Sanskrit treatises on Music, Architecture, etc.;

That, in the special courses of English literature also, provision should be made for the study of the principles of Sanskrit literary and dramatic criticism, Alankara and Natya-Sastra and for a comparative study of the Sanskrit epic, drama, etc., at least in translations.

That, in the special courses of scientific subjects, like Mathematics and Astronomy, Medicine, etc., the syllabi should include a study, from the historical and comparative points of view, of the contributions of India in those branches as found in old Sanskrit texts; and

That, to enable all graduates of Indian Universities to have some knowledge of the cultural heritage of the country, there should be a general provision for all students in schools and colleges for a graded course in the culture enshrined in Sanskrit, giving an introduction to Sanskrit literature, Indian thought, philosophy and religion, and art and architecture.

Teaching Of Sanskrit

The Commission recommends—

That, in view of the unique character of the Sanskrit language, which can be compared neither with the spoken mother-tongue nor with a dead archaic language, and which is immanent in the thought, vocabulary and form of most of the spoken tongues of India, special steps should be taken to investigate into the methods of teaching it to different categories of students, Indian and foreign;

That Sanskrit Pedagogy should be recognised as a special subject; and

That courses should be organised in Teachers' Colleges for imparting training to Sanskrit Teachers of both the Graduate and the Pandit types in methods of teaching Sanskrit.

1. Schools: The Commission recommends—

That, owing to the peculiar nature of Sanskrit, which a young student does not normally hear spoken around him, a certain amount of memorising, particularly of declensional and conjugational forms, should be made a legitimate part of Sanskrit instruction;

That, in teaching Sanskrit, the teacher should not only use all the modern methods and aids, such as direct method, visual aids, conversation, recitation, dramatic production, etc., but he should also press into service the traditional Khandanvaya and Akanksa methods (V 1.8), so that all these methods would ensure an active participation of the student in the process of teaching and add to his interest and zest in learning the language;

That, at the earlier stages, grammatical forms should be taught as full-fledged parts of speech, rather than as stems, roots and terminations, and that, for this purpose, grammar should be taught as a complement to or as arising out of the speech or the literary material used; and

That, at the School stage, the mother-tongue or the regional language, which is closely related to Sanskrit, should be generally employed as the medium for teaching Sanskrit and that occasionally Sanskrit also should be employed when the direct and conversational method is resorted to.

2. Colleges: The Commission recommends—

That, in the courses of special Sanskrit at the collegiate stage, an adequate amount of Sastraic study should be provided for, and that, for the proper teaching of the Sastras, qualified Pandit-Teachers should be employed in the Degree and Post-Graduate Departments of Sanskrit in Colleges and Universities;

That, as the prescription of a large number of texts prevents adequate justice being done to each text, in some respects, the number of texts prescribed should be reduced so that these texts could be studied with greater intensity;

That the highest University course in Sanskrit should provide for the attainment by students of ability to write

and speak Sanskrit freely and to read further Sanskrit texts by themselves;

That, wherever possible, contact and collaboration should be established between the Sanskrit M.A. classes and the teaching of the corresponding texts in the Pathasalas in the same centre; and

That, the curricula of Sanskrit studies should be so designed as to avoid the serious gap that now exists between the Intermediate or the Pre-University standard on the one hand and that required for the B.A. (Hons.) and M.A. courses on the other.

3. Pathasalas: The Commission recommends—

That the course of studies in the Pathasalas should be more broadbased, and that too narrow and too premature specialisation in a single Sastra should be avoided;

That a Sastri or equivalent title-holder should not only acquire good grounding in general literature and the basic Sastras, but should master, besides a special Sastra, other related Sastras also;

That, in the syllabus of studies, adequate provision should be made for the study of the Pracina texts in each Sastra and also of hitherto neglected subjects and Sastras, such as Veda (with Bhasya), Buddha and Jaina Darsanas, Pratyabhijna, Tantra, etc.;

That, as fair grounding in Navya Nyaya should be given to all students who have to study higher texts belonging to the later dialectical phase of each Sastra;

That, in the final stages, students of the different Sastras should be given a knowledge of the corresponding developments in Western thought;

That, in the teaching of Sastraic texts, improvements in the pedagogic methods suggested in VI.35 should be adopted, so that greater interest would be created among the students and there would be a more active participation on their part in the classes;

That, except in the lower classes where the mother-tongue may be used, if necessary, the medium of instruction in the Pathasalas should be Sanskrit;

That, the Pathasalas should develop extra-curricular activities as indicated in VI.37 to create and sustain interest and enthusiasm among the students;

That, in addition to the line-by-line study of the texts, provision should be made in the Pathasala classes for the students acquiring a grasp of the general outlines and a comprehensive view of the contributions of the specific Sastras and texts, through general lectures and essay-writing;

That, with a view to remedying the drawback, namely, that the present Pathasala-system does not produce scholars equal to the Pandits of the old type, the examination system for the Pathasala education should be drastically revised and oral examination of the traditional Sastrartha or Vakyartha type should be introduced as a substantial part of the examination (say, with 50 per cent marks for the written test and 50 per cent for the

oral Sastrartha test), and that the new Sastri and Acharya title-holders should be required to appear for a test in open assemblies (Sabhas) presided over the panels of Senior Pandits. The Commission desires to emphasise this as the most effective way to restore to the Sastraic learning its old depth and intensity.

Sanskrit Research

1. Research: This Commission thinks that the spirit of research is not something foreign, but is part and parcel of the tradition of Indian scholarship; that Research has an intimate bearing on the deepening and vitalising of Sanskrit study; and that, in this Research, which would consolidate and develop Sanskrit studies today, both the modern Sanskrit scholar and the Pandit have to take their share.

This Commission also thinks that, as the subjects of Research in the field of Sanskrit and Indology are still part of a living tradition and culture in India, Indian Indology is bound to have its own unique nation; and that, today, independent India affords free and ample scope for fresh investigation and interpretation in the field of her culture.

This Commission envisages an ideal Sanskrit scholar who can play a distinct and valuable role today as one who combines in himself the best features of modern methods and traditional equipment (VII.8) and thinks that adequate care ought to be taken to see that a spurious and superficial combination of the two systems does not dilute the standard of scholarly work in the field of Research (VII.11).

2. Pathasalas And Pandits: This Commission recommends—

That, in all Universities, facilities for Research should be afforded to the products of the Pathasalas as much as to those of the Universities and Colleges;

That, where the higher Pathasalas or Sanskrit Colleges as affiliated to the Universities, facilities for Research by the staff and students of these Sanskrit Colleges should be provided for;

That Post-Graduate Research Titles or Degrees should be instituted for the Sastris, Siromanis, Tirthas, Vidvans, etc.;

That high grade Sanskrit Colleges, with reputed Pandits on their staffs and well-equipped libraries and collections of manuscripts, should be recognised by the Universities and the University Grants Commissions as centres for Research;

That Pandits should be encouraged and given adequate scope to edit critically difficult Sastraic texts and to bring out expositions of the recondite technique and terminology of Sastraic writing;

That Research Journals in Sanskrit should be started in which research work done through the medium of Sanskrit might be published and Sanskrit abstracts

might be given of research work published elsewhere in English and other languages; and

That the Sanskrit University or Universities, recommended by this Commission, should have Research Departments devoted to the different Sastras, where Pandits might be able to make their original contributions.

3. Universities: This Commission recommends—

That, in order that higher Research work in Sanskrit might be carried on in the Universities and that adequate guidance might be available there to young research scholars, every Indian University should have a separate Sanskrit Chair and Department of one or more members.

That the University Sanskrit Departments should be so strong as not to allow the quantum of research work to suffer on account of an overload of Degree-class Teaching, and that the Departments should concern themselves mainly with Post-Graduate Teaching and guiding of Research Students and Scholars;

That these Departments should be under the charge of scholars who have a distinguished record of Research work to their credit, who are continuously engaged in Research work and who are capable of giving guidance to Research Students;

That the University Sanskrit Professors should try to inculcate in the Research Students correct ideals and standards in methods of Research as indicated in VII.14-16, and that they should make available to young scholars, who have registered themselves under them for Research Degrees, active guidance and effective supervision of their work;

That the University Departments of Sanskrit should be well equipped with adequate library facilities, including bibliographical and reference material, periodicals, etc., required for Research work;

That all Universities should make awards of Research Studentships of at least Rs. 100 p.m. to such of the brighter graduates, as desire to prosecute Research work, and that at least one or two of such Research Studentships should be made available regularly to the Sanskrit Department every year;

That, as it is desirable and necessary to give further encouragement to those who have qualified themselves in Research, a certain number of scholarships or fellowships should be awarded annually also to those who have taken their first Research Degree; and desire to undertake further Research;

That the Research Scholarships awarded by the University Grants Commission, which are of a higher value, should be treated as continuation scholarships of this type for the further encouragement of those who have taken their first Research Degree;

That the Humanities Scholarships awarded by the Union Ministry of Education, which are still higher

in value, should be granted to adult Research Scholars, or to Teachers in affiliated colleges who can take research leave, or to retired Professors who have chalked out a programme of Research work, have materials for such work and require financial assistance to complete that piece of research work;

That, for the first Research Degree, Sanskrit Research Students, who are to be introduced to textual criticism, should take up the work of critically editing an important unpublished text with a critical introduction and study, and that the more interpretative type of work, which requires greater maturity, should be taken up for the higher Research Degree;

That Indian Universities, which now have diverse practices, conventions and standards in the matter of the adjudgement of Research theses submitted to them, should establish some uniformity regarding the type of Research Degrees, the method of appointment of Referees and the valuation of theses;

That there should be an initial Research Degree, called M. Litt., and only one higher Research Degree, called D.Litt.; that, for both these, there should be viva voce test besides the thesis, and that the viva voce for D Litt. should be of the nature of a regular public test;

That, as regards the appointment of Foreign Referees, Indian Universities should follow a uniform policy; that, where Indian experts are available, they should be generally preferred, particularly when the thesis relates to pure Sanskrit studies; that, if Foreign Referees are to be appointed, there should be only one such in a Board of three Referees; and that the practice of appointing the Professor, who has guided the candidate, as an Internal Referee should be discontinued;

That the University Grants Commission and the Universities should revise their policy in respect of Foreign Degrees, especially in a field like that of pure Sanskrit studies (as indicated in VII.22);

That, while young Indian Graduates might be encouraged to go to Foreign Universities to study subjects like Comparative Philology, which are not adequately cultivated in this country, the University Grants Commission, the Universities and the Government should revise their policy in respect of sending Indian Graduate to foreign countries for a higher study of subjects like pure Sanskrit; and

That, on the other hand, since, even in the field of subjects like Sanskrit, sending abroad of more mature scholars of established reputation would have great significance and value (as shown in VII.23), and deputation of such scholars to foreign countries for lecture-tours and in schemes of exchange of Professorships should be more actively pursued.

The Commission recommends—

That greater discretion should be shown in the choice of subjects taken up for Research by young students

and scholars, and that, in this connection, attention should be paid more particularly to the many neglected fields demanding investigation by Research scholars (as indicated in VII.24-28):

That adequate facilities should be made available in this country for the proper pursuit of researches in the subject of the spread of Indian culture, Sanskrit language and literature, and Indian art and philosophy in countries outside India; that, for this purpose, a School of Asian Languages should be established in India and facilities should also be afforded in Indian Universities for the study of these languages, so that a tradition of research in these Extra-Indian Studies might be built up in this country; and that the All-India Oriental Conference should be helped to open a new section devoted to the subject of Indian Cultural Contacts outside India.

4. Lectures, Seminars, etc.: The Commission recommends that University Lectures, through Departmental arrangement or by invitation under specific Endowments, Seminars and Inter-disciplinary Studies should be provided for and developed in the Universities with a view to stepping up the quantity and quality of Research work being done under their aegis.

5. Publication: The Commission recommends—

That greater facilities should be made available for the publication of the results of Research done in the different Universities and for making the Research publications of the Universities better known and more easily accessible in other centres of Research both in India and abroad;

That greater interest should be taken by Indian publishers in the publication of Sanskrit and allied Indological works and in improving the standard of the printing of such Research works (as indicated in VII.34-35);

That the Central and the State Governments should give greater encouragement to authors and publishers of Sanskrit and Indological books by making the libraries both in cities and mofussil centres, which receive grant-in-aid from them or which are under the charge of District Boards and other local bodies, purchase such books regularly (VII.36);

That, instead of reprinting old works on ancient Indian literature and culture, written by Western Orientalists at a time when materials were not yet adequately available, publishers in India should arrange with Indian scholars for the writing of new books relating to ancient Indian culture and literature, so that, the latest researches and their significance for the present age might be well reflected in these works; that, at the same time, arrangements should be made for the reprinting of some of the old publications of fundamental value in the field of Sanskrit and Indological research, containing bibliographical material, original records, basic texts, and translations, etc., as also for the re-issue in Devanagari

editions of a number of texts (e.g. in the field of Veda, etc.), which are available only in Roman script;

The several agencies, official and non-official, public and private, which are bringing out Series of Sanskrit Texts, should show greater discretion in the matter of the selection of texts to be included in such Series; and that they should ensure the proper critical editing of these texts, which requires careful examination and collation of the available manuscript material and the preparation of the critical apparatus and the introduction;

The facilities should be made available to Manuscript Libraries, University Sanskrit Departments, Institute of Sanskrit Research and other agencies to bring to light larger number of valuable texts still lying in manuscripts in the different libraries; that, for the purpose of ensuring the speedy publication of a larger number of really valuable texts, an inventory (in order of priority) should be drawn up, by scholars conversant with the manuscripts-material, of works of value lying in the different manuscript libraries, which deserve to be printed; and that such an inventory should be made available to all the agencies, public and private, which are engaged in the work of bringing out editions of texts.

6. Periodicals: The Commission recommends—

That periodicals publishing articles relating to Sanskrit and other allied research should make every effort to raise their standard by such means as the proper screening of the papers submitted to them, so that they could play a more effective role in the matter of improving the quality of Research work done in the country; and

That, as the number of Indological Journals and the output of Research published in them is large, plans for preparing and publishing Research Digests, Annual Bibliographies, etc., should be seriously taken in hand.

7. Projects: The Commission recommends—

That, in view of the limited resources in respect of funds and personnel at present available, Research Institutes or University Departments should not, as far as possible, embark on any new big scale Research Projects;

That, in the interest of the entire Sanskrit Research in the country, the Central Government, the University Grants Commission, the State Governments and other authorities should concentrate, for the time being, on helping expeditious execution and completion of the important large-scale subjects, which have already been undertaken at the different centres, such as, the Critical Edition of the Mahabharata (Bhandarkar Oriental Research Institute, Poona), the New Catalogus Catalogorum (Madras University), the Vedic Word Concordance and Vedic Dictionary (Vishveshvaranand Vedic Research Institute, Hoshiarpur), the Sanskrit Dictionary on Historical Principles (Deccan College Research Institute, Poona), the Critical Edition of the Ramayana (M.S. University, Baroda), etc. mentioned in VII.43 and discussed in (VII.43-47); and

That, in the present conditions, it is more desirable to encourage the undertaking of smaller unit of work, rather than big projects, and thereby to step up the production of individual research (VII.48).

8. Non-Official Institutes: The Commission notes that there is a net-work of privately organised Research Institutes, which have been sustaining the work of Research in Sanskrit and allied fields in the different parts of the country; that these Institutes have either been pioneers in the field or are complementing the work of official agencies in their areas (VII.49); and that these private Institutes are severely handicapped on account of extremely limited resources in respect of staff, equipment, accommodation, etc. (VII.50).

The Commission recommends that all these non-official Sanskrit and Indological Institutes in the country should be brought under a comprehensive scheme of co-ordination and should be given by the Central and the State Governments generous grants, both recurring and non-recurring, for, in the opinion of the Commission, these private institutes form a necessary and integral part of the Research activity in the field of Sanskrit and Indology in this country (VII.51).

The Commission recommends that the methods of assessing and assisting Indological work in this country, adopted by the present ad hoc Indology Committee set up by the Ministry of Education, should be revised and rationalised (VII.54).

9. Central Institute of Indology: The Commission recommends that the Government should establish a Central Institute of Indology, which among other things, would supplement the work being done by the existing Research Institutes and would have, as its main objective, Research work which is being neglected at present or which can be carried out only with the special facilities such as the Government alone can provide for (VII.55).

The Commission further recommends—

That the core of this Institute should be the section devoted to Sanskrit, its other sections being devoted to such fields as Munda, Dravidian and Sino-Tibetan Languages and their relation to Sanskrit; History and Antiquities of Egypt and the Near East (Hittite and Iranian); and studies relating to Central Asia, Nepal, Tibet, China, and South-East Asian countries (VII.55);

That this Institute should work in collaboration with or comprehend the Central Manuscripts Survey recommended elsewhere (VII.55); and

That the work of the Central Institute should also include the preparation of annual bibliographies of Indology, publication of Sanskrit texts and Research monographs, and functioning as a Central Clearing House for Research Scholars (VII.56).

10. Co-ordination: The Commission recommends—

That the work of Research being carried on at different centres in this country, in Universities, Research

Institutes, etc., should be properly co-ordinated and that duplication of work should be avoided (VII.58);

That, for this and other related purposes, year-to-year inventories of subjects of Research undertaken at different centres should be issued (VII.58); and

That steps (as indicated in VII.58) should be taken to promote a healthy and cooperative atmosphere in the field of Sanskrit Research in the country.

11. Conferences: The Commission recommends—

That the All-India Oriental Conference, which is the premier forum of Orientalists in this country, should be placed on a permanent basis, with adequate financial resources (VII.59);

That the Conference should be helped, in every possible manner, to expand the scope of its work by starting new Sections devoted to hitherto neglected fields such as Indian Cultural Contracts Abroad (VII.60); and

That the Conference should be given adequate aid to enable it to invite, for every Session, delegates from other Asian Countries particularly interested in the study of Indian Cultural Contacts with their own respective regions (VII.59.60).

The Commission feels that, apart from the academic gain accruing from it, this last-mentioned line of work of the Conference will have a lasting benefit on the larger front of promoting Asian Solidarity (VII.61).

12. Prizes, Foundations, Etc.: The Commission recommends that Prizes for Sanskrit and Indological work, on the model of those awarded by the Sahitya Akademi, should be instituted to promote high class Research work (VII.62);

The Commission hopes that the Philanthropists of the country will bring into being big Endowments and Foundations, such as the ones functioning in America, for awards of scholarships and grants of financial aid to Research Scholars and Projects (VII.63).

The Commission thinks that it is the imperative duty of the Government of India to ensure the continuation and expansion of higher Sanskrit Studies in this country, so that several fields, in which Western Indology had hitherto been taking the initiative, might now be properly investigated into by Indian scholars; and that, however much it might be necessary to devote special attention to Scientific and Technological Studies in modern times, the Government should not ignore the need for promoting Humanistic Studies, particularly Sanskrit, Indian Philosophy, Archaeology and Art, which constitute the most precious cultural heritage of India (VII.64-66).

Manuscripts

The Commission recommends that the Government should pay due attention to the question of Manuscripts, as the content, value and standard of the Research work

in the field of Sanskrit primarily depend on the discovery of outstanding Sanskrit works among the Manuscripts lying scattered all over the country, and as the reconstruction of Indian History, Thought and Culture is dependent on Manuscript sources as on Archaeological and other materials (VIII.4.12-16.20.26).

The Commission recommends—

That, in order to tackle adequately the problem of the vast collections of Sanskrit Manuscripts lying in the different parts of the country, the Central Government should establish a Central Manuscripts Survey, which would be an independent Central Organisation or would form an important Section of the proposed Central Institute of Indology, or would work under the aegis of the Central Sanskrit Board recommended elsewhere (VIII.24);

That the Central Manuscripts Survey should have regional branches and should work in collaboration with State Governments and locally functioning non-official bodies (VIII.25);

That the work of the Central Manuscripts Survey should consist of Search, Survey, Collection, Cataloguing and Publication of Manuscripts of Sanskrit and allied works, and that, for this purpose it should have in its Central and Regional Branches qualified personnel experienced in Manuscript and editorial work and conversant with the local scripts and conditions (VIII.24);

That the Central Manuscripts Survey should publish a periodical Bulletin or Report giving details about the Manuscripts surveyed, transcribed, loaned or collected from time to time (VIII.27); and

That this Central Manuscripts Survey should function also as a Clearing House in respect of Manuscripts from foreign libraries, which are to be procured for the use of Indian scholars (VIII.27).

The Commission recommends—

That adequate steps should be taken to safeguard the Manuscripts, particularly in private possession, against decay;

That public consciousness should be aroused in respect of the value of Manuscript treasures lying in the nooks and corners of the country; and

That, wherever possible, such Manuscripts should be acquired from their owners or the owners should be helped to preserve them properly (VIII.19.24).

The Commission recommends—

That the Government should, if necessary, enact a suitable legislation to prevent the flow of manuscripts to foreign countries by sale or other means (VIII.17.25); and

That active steps should be taken to build up, in the proposed Central Manuscripts Survey, a library of microfilm copies of Sanskrit and allied Manuscripts from collections in Western countries (VIII.25.27).

The Commission recommends—

That each State Government should start its own Manuscript Library, wherever such Library does not already exist, in order to safeguard the Manuscripts in that region (VIII.10-19.29);

That these States or other local Manuscript Libraries should be under the charge of persons who are specially qualified in Manuscript and editorial work and who have some standing in the field of Research (VIII.31);

That wherever such Libraries, particularly belonging to the State Governments, have stopped the work of Peripatetic Search for Manuscripts, they should resume that work (VIII.22-29).

That, these Libraries should make adequate arrangements for the thorough examination and early cataloguing of the Collections of Manuscripts made by them (VIII.22-29);

That the Manuscript Libraries should have an adequate staff who can examine the Manuscripts, catalogue them, and also edit the rare works discovered among them (VIII.22-29);

That, while preparing Catalogues of Manuscripts, due attention should be paid to the correctness of identification and other information, and that, as far as possible, such Catalogues should follow uniform or standard methods of describing the Manuscripts (VII.23);

That the Government should give necessary financial assistance to the Libraries possessing big collections, the nature and value of the contents of which are not known to scholars, with a view to enabling them to expedite the publication of their descriptive catalogues (VIII.11-30);

That the Manuscript Libraries should have adequate accommodation and furniture for stocking Manuscripts, and should, as far as possible, possess micro-filming and photostat equipment, micro-film reading apparatus and similar other facilities (VIII.28-29);

That the Manuscript Libraries should afford facilities to bona fide scholars and institutions to consult or borrow Manuscripts from them (VIII.28);

That, wherever the Manuscript Libraries are publishing critical editions of works, they should seek the advice and cooperation of scholars conversant with Manuscript and editorial work, with a view to ensuring that their work is being done on proper lines; and

That the Manuscript Libraries should take due care of the Manuscripts and seek the advice of experts on the methods of their preservation (VIII.31).

The Commission recommends that the Government should take immediate steps to throw open to the public the Manuscript Libraries of the former Native States which are now inaccessible to scholars (VIII.11).

Sanskrit Universities

The Commission recommends—

That, with a view to upgrading and toning up the

traditional system of Sanskrit Education, Sanskrit Universities should be established in different areas (IX.18);

That the Sanskrit Universities should not interfere in any manner with the existing Universities and their Sanskrit Departments and the courses of Studies in Sanskrit on modern lines (IX.12);

That the Sanskrit Universities should constitute the apex of the reorganised Pathasala system of Sanskrit Education (IX.15);

That the function of the Sanskrit Universities should be to co-ordinate Pathasalas and Sanskrit Colleges, regulate their courses of studies, inspect their working, and conduct their examinations (IX.15);

That, besides being co-ordinating, affiliating and examining bodies, the Sanskrit Universities should also function as Centres of Higher Studies and Research in Sanskrit (IX.15);

That the Sanskrit Universities should be brought into being and function under the aegis of the Statutory Body called the Central Sanskrit Board, recommended elsewhere (IX.16.17);

That the Sanskrit Universities should adopt, at all stages, Sanskrit as the medium of teaching, administration, production of books, etc. (IX.13);

That while the Sanskrit Universities should concentrate on pure Sanskrit Studies at the highest level, they should also comprehend the necessary complement of modern knowledge and should provide to the scholars working there facilities to study contemporary developments in the different branches of knowledge; and

That the Sanskrit Universities should have, in their programme of work, the production of Sanskrit works embodying modern knowledge, so that Sanskrit Studies fostered in their set-up do not suffer from segregation (IX.15).

The Commission recommends that the Central Government should make it a point to encourage all proper proposals for Sanskrit Universities coming from the States (e.g., the one relating to the Varanasi Sanskrit University of Uttar Pradesh) (IX.3.16).

The Commission recommends that the Central Government should give a lead in the matter of the Sanskrit Universities by founding a centrally administered Sanskrit University somewhere in the South (IX.17).

The Commission suggests that private bodies and associations, which desire to organise and set up Sanskrit Universities, should bestow due thought on the various problems involved in that connection, should assure themselves of the required resources in respect of men and money, and should obtain the prior approval of the authority or authorities under whose aegis such Universities are to come into being and function (IX.16).

General

The Commission recommends—

That, in view of the cultural importance and pan-Indian character of Sanskrit, and with a view to arresting the growth of fissiparous tendencies and linguistic parochialism, which are at present threatening the unity of India (through the agency of Sanskrit which has, through the ages, played the role of a great unifying force in the country), Sanskrit, which is already one of the languages recognised by the Constitution, should be declared as an Additional Official Language (by the side of Hindi and English, for the time being) to be used for public purposes as may be feasible;

That, in particular, Sanskrit should be officially used on all such ceremonial occasions as the taking of oath, the wearing-in ceremony, the opening and the conclusion of the Sessions of Legislature and of officially sponsored National and International Conferences and Deliberative Bodies, the presentation of credentials, the award of National decorations and honours, and the University Convocations, as also for such purposes as Passports and Mottos of different departments of the Government. In this connection, the Commission desires to emphasise that the use of Sanskrit which commands unique prestige and respect all over India, would add to the dignity and solemnity of such occasions (X.1.21.29).

The Commission recommends that the infinite resources of Sanskrit literature, particularly of its pithy sayings and didactic stanzas (Subhasitas) should be utilised in Schools and Colleges for such moral and non-denominational religious instruction as might be imparted in these Educational Institutions. The Commission further recommends that the Sanskrit Subhasitas which have a knack of sticking to memory and which constitute the popular wisdom of the nation, should be taught to the children from the earliest stages of their school education (X.2.3).

The Commission recommends that, as far as possible, efforts should be made to teach a Uniform Standard Pronunciation of Sanskrit in all parts of the country; that, for this purpose, qualified readers and teachers of Sanskrit from areas, where the standard pronunciation is better, should be employed in areas where pronunciation of Sanskrit is defective, and that, for the same purpose, tape-records and gramophone records, as also the services of the All India Radio, should be utilised (X.4.7).

The Commission recommends that, for pan-Indian purposes, Devanagari should be accepted as the Uniform Script for Sanskrit and should be taught to all students of Sanskrit; at the same time, the practice of using Local Scripts for Sanskrit should be continued as one of the chief ways of maintaining the necessary intimate contact of Sanskrit with the regional languages and promoting the advance of Sanskrit within the various regions; and that the Roman Script, which is used in a number of

Sanskrit texts published in the West, should also be cultivated by Pandits so that they would be able to use the material printed in that script (X.8-15).

The Commission recommends the full exploitation of Sanskrit and the technical and scientific literature available in it for the building up of an All-India Scientific and Technical Terminology. The Commission further recommends that the principle which has been laid down in the Constitution and which has been supported by the Official Language Commission, namely, that the Official Language, Hindi, shall draw primarily from Sanskrit, should be given full effect to, particularly for the purpose of evolving a Scientific and Technical Terminology for all-India use. The Commission recommends, for this purpose, the formation of associations of scientists and specialists in different disciplines who should collect from different branches of Sanskrit literature all such precise technical terms as can be used today, and also recommends the compilation of a comprehensive English-Sanskrit Dictionary of Scientific and Technical Terms (X.16-20).

The Commission recommends that, in view of the importance of Sanskrit for the understanding of the culture and the national genius of India, the personnel recruited for the Indian Administrative and Foreign Services should be given opportunities, through special courses of lectures, to acquire adequate knowledge of Sanskrit Thought and Indian Culture. The Commission further recommends that the Government should take early steps to appoint, in Indian Embassies abroad, Cultural Attachés possessing special competence in Sanskrit Language, Literature and Culture, so that centres of Indic studies in the different countries as well as the public in general interested in Indian culture might derive the necessary help from them. The Commission further recommends that Indian Embassies abroad should put up, now and then exhibitions of Indian literature and other cultural material and maintain a fairly representative library of Indological literature. The Commission desires to point out that the appointment of such Cultural Officers would go a long way in creating among the considerable number of Indians, now living or domiciled in various foreign countries, the necessary awareness for the culture of their motherland (X.30-36).

The Commission recommends that, with a view to enhancing the prestige of Sanskrit and by way of recognition of scholars of real eminence, the Government should revive the award of the Title of Mahamahopadhyaya with an attendant life-honorarium of Rs. 200 p.m. that the Central Government should, in cooperation with the State Governments, also provide for a scheme of life-pensions for the Pandits, who are in indigent circumstances but who are respected for their learning and character in the different parts of the country; that

some of the eminent Pandits, who take interest in current affairs and are distinguished writers, should be nominated to Legislative Bodies, at the Centre and in the States; and that the President of India and the Governors of various States should hold Annual Sabhas for honouring eminent Pandits (X.37-42).

The Commission recommends that, in view of the fundamental importance of the Vedas from the point of view of the later development of Sanskrit Literature and Indian Thought and Philosophy, special attention should be paid to the preservation of the Oral Tradition of the different Vedas and their recensions as current in different parts of India, this Oral Tradition being useful even from the point of view of linguistic and literary research; that provision should be made available in temples and religious institutions for the recitation of the Vedas, and that where such provision already exists, it should be continued; that the surplus of temple funds which might be available, should be utilised for the maintenance of schools for the teaching of the Kanta-Patha of the Vedas; that, in those parts of India where the Oral Tradition of the Vedas has died out, authorities of educational and religious Institutions should take steps to revive it; that the Research Institutes working in the field of the Veda should, wherever possible, utilise the services of the Pandits who have preserved the Oral Tradition of the Vedas; that special attention should be paid to the tradition of the Samaveda, which is important from the point of view of Indian Music also, as well as to the tradition of the Atharvaveda, which has become almost extinct (at present being current only in a few families of Nagar Brahmanas in Gujarat); and that the Vedic Endowments, such as those in the Deccan and South India, which are facing difficulties in one way or another, should be helped by the Government to rehabilitate themselves in the matter of realising their annual incomes and utilising them (X.46-51.53).

The Commission further recommends that, apart from helping the preservation of the Oral Tradition of the Vedas in the manner indicated above, the Government should take early steps to prepare complete Tape-recordings of the Vedas, through the All India Radio or through some other official or non-official agency, and thus build up a Library of Vedic Recordings (X.52).

In view of the great role as the popular educator of the Indian masses, which the Epics and the Puranas have efficiently played in the past, and in view of the present efforts of the Government in connection with the spread of education and moral ideals among the masses, the Commission recommends that steps should be taken to train the required personnel for the exposition of Itihasa-Purana, and that the Pathasalas should introduce Itihasa-Purana and other exposition among their regular courses.

The Commission recommends that gifted exponents of the Ramayana, the Mahabharata, the Gita, the

Puranas, etc., should be employed in Community Projects and National Extension Service Schemes for the inculcation among the masses of the proper ideals of conduct and Departments, functioning in some States, should also employ such exponents of the Epics and the Puranas for regular as well as occasional expositions (X.54-55).

The Commission recommends that, wherever possible and necessary, courses in Paurohitya and Karmakanda should be introduced in the Pathasalas. The Commission, however, thinks that it would be desirable if the Vaidikas and the Purohitas were given a better academic grounding in Sanskrit, Veda and allied disciplines (X.56).

The Commission recommends that, in the different scientific and technical subjects in the University courses, students should be given an adequate knowledge of the ancient Indian contribution to those sciences as embodied in old Sanskrit texts, and that research should be carried on in the field of the Indian contribution to sciences, so that ancient Indian scientific knowledge might be properly apprised (X.57).

The Commission recommends that, in respect of Ayurveda, while the necessary quantum of modern knowledge and equipment needs to be introduced in its study, such large-scale integration with modern medicine, as would destroy the essential character of the Ayurvedic studies, should be discountenanced; that Ayurvedic Title Courses should be converted into Degree Courses; that the Universities should set up Departments of Research in Ayurveda; that text-books for the Ayurvedic students should be prepared in Sanskrit so that they might be used all over India; and that knowledge of Sanskrit should be considered a prerequisite for all students going in for Ayurveda (X.58-60).

The Commission thinks that the attitude of the Centre and the States towards Ayurveda needs to be revised, that greater utilisation of the service of Ayurveda should be encouraged among the people, and that steps should be taken to train larger Ayurvedic personnel. The Commission further thinks that it would be desirable to set up an All-India Council of Indigenous Medical Systems including Indigenous Veterinary Science (X.61).

In connection with Indian Astronomy, Mathematics, etc., the Commission thinks that there is much scope for research in these branches; it, accordingly, recommends that students of Mathematics and Astronomy in the Universities should be given an adequate idea of the work on Jyotisa, etc., embodied in Sanskrit, so that these students might feel inclined to take to research in the field of Sanskrit contribution to these subjects (X.62).

The Commission recommends that, in Schools of Art and Architecture and in modern courses in these subjects organised in the Universities, Sanskrit texts on Silpa-Sastra should also be taught, and that adequate steps should be taken to revitalise the practice and

tradition of the ancient Indian Silpa-Sastra (X.63.64).

The Commission favours a simple form of Sanskrit, but not a simplified or Basic Sanskrit, which takes liberties with the grammar of the language. It, therefore, suggests that graded forms of simple Sanskrit should be employed in the initial stages of the teaching of Sanskrit to children and adults (X.65-67).

The Commission recommends that the authorities and the public should support Sanskrit Journals, which form an effective medium for developing Sanskrit as a vehicle of modern thought and current affairs (X.70-72).

The Commission recommends that the following measures should be adopted for the popularisation of Sanskrit:

(1) Organisation of private classes; (2) Study groups; (3) Private examinations; (4) Popular Sanskrit booklets and selections with translations; (5) Establishment of Sanskrit Associations, Clubs, Sabhas, etc.; (6) Celebration of Days in commemoration of important Sanskrit Writers and Works; (7) Popular publications; (8) Simplification of methods of teaching Sanskrit; (9) Sanskrit Literary Conference; (10) Promotion of original writings in Sanskrit; (11) Sanskrit Debates; (12) Competitions in short stories, plays, etc., in Sanskrit; (13) Musical Recitals of Sanskrit classics; (14) Putting on boards of Sanskrit Dramas; and such other measures as have been set forth in Section 14 of Chapter X.

The Commission recommends that, in order that the aesthetic and auditory qualities of Sanskrit might be fully exploited for the growth of popular interest in Sanskrit, the Government should give special encouragement to Sanskrit drama, opera and dance, musical recitals etc., by such means as sponsoring an annual Kalidasa Drama Festival.

The Commission recommends that, as far as feasible, the authorities should extend their help and patronage to the more important and active private academies and bodies, which are working for the popularisation of Sanskrit in their respective regions.

The Commission recommends that the All India Radio and the Film Division of the Ministry of Information and Broadcasting should take all possible steps in the matter of the popularisation of Sanskrit (as indicated in X.78-80).

The Commission recommends that the Indian Press should afford all possible facilities for popularising Sanskrit through their columns (in the manner indicated in X.84).

The Commission recommends that the Union Government and the Sahitya Akademi and the State Governments and the Regional Branches of the Akademi should actively help the publication, in cheap and uniform series, of Sanskrit Classics with translations in Modern Indian Languages and English, as also of works relating to Indian Thought and Culture.

The Commission further recommends that Sanskrit Texts, which are no longer available, should be brought in new editions by the Sahitya Akademi and other bodies; that works like a Dictionary of Sanskrit words current in Regional Languages, handy editions of Poems and Plays of great Sanskrit Authors, a Men of Letters Series of Sanskrit and Prakrit Writers, Studies on Indian Philosophers and Philosophical Schools, and attractive story-books in Sanskrit, should be taken up for publication, and that the National Book Trust of India and the Sahitya Akademi should sponsor the efforts in this direction; and that new and undeveloped types of literary expression should be encouraged in Sanskrit, and that prizes should be offered for the same by the Sahitya Akademi and the State Governments (X.85-91).

Administration And Organisation

Trusts And Endowments: The Commission desires to bring to the notice of the Government that there are in the country a large number of Endowments specifically earmarked for Sanskrit (including the Vedas), as also considerable surplus funds available with Religious Trusts, Temples and other similar Foundations, which, if properly tackled, can be legitimately used towards the implementation of the proposals made in this Report for the reorganisation, promotion and improvement of Sanskrit studies.

As many of such Endowments are either moribund or frozen or mismanaged or diverted for purposes not consistent with their original object and as the surpluses of Religious Trusts referred to above are either unutilised or diverted for secular purposes, this Commission urges upon the Government to take steps to institute, through the Central Sanskrit Board or some other competent agency, a full inquiry into such Endowments, set right their administration, make them operative, help them to realise the proceeds, and redirect the diverted funds of Temples, etc., towards the proper cultivation of the Veda, Itihasa-Purana, Agama, Dharma and other branches of Sanskrit study related to the original objective of the Endowments.

The Commission recommends that the Central Government should pass a suitable Legislation prohibiting the diversion of funds earmarked for Sanskrit studies to other charitable purposes, even with the concurrence of the Trustees and after the orders of the Courts. This Legislation should further prohibit the diversion of the surplus funds of religious institutions like Maths and Temples to secular charitable purposes and should insist upon the utilisation of these for promoting Sanskrit studies, which are broadly speaking regarded as religious objects.

The Commission recommends that where, as a result of the abolition of Estates and Zamindaris and the merger of former Native States and Principalities, the

maintenance of Sanskrit studies provided for in the previous set-up has been adversely affected, the Central and the State Governments should take special care to ensure the continuance of the support which Sanskrit used to receive from its former patrons, and that the Government should also honour in full the commitments of former Princes and Zamindars, in respect of the promotion of Sanskrit, Vedic studies etc. (XI.2-16).

Numerous Sanskrit Institutions are dependent on Land-endowments; and the Agrarian Policy which has been recently adopted by some States adversely affected these Institutions. The Commission, therefore, wants to press this matter upon the Governments for their earnest consideration (XI.5).

In view of the facts that Sanskrit possesses an All-India importance, that its interest cannot be wholly taken care of by the States which have to develop the regional languages, and that a uniform policy for the whole of India in respect of Sanskrit is desirable, this Commission recommends that Sanskrit should be specially taken care of by the Centre by placing it in the list of Concurrent Subjects in the Constitution (XI.19); that, while the States should normally look after Sanskrit in their educational set-up, the Centre should, whenever necessary, financially assist the States to fulfil their obligations in respect of Sanskrit; and that the Central Government should promote such activities in the field of Sanskrit as do not receive adequate attention from the State Governments.

Central Sanskrit Board: In view of the fact that several proposals made by this Commission for the cultivation and promotion of Sanskrit presuppose constant attention, co-ordination and direction from the Centre, the Commission recommends—

That the Central Government should take early steps to set up a Central Sanskrit Board;

That this Central Sanskrit Board should not be only a co-ordinating and advisory body like the Central Boards of Secondary Education, Archaeology, etc., but that it should be constituted on the lines of the University Grants Commission, with statutory authority and financial provisions for helping Sanskrit Studies and Research in the country;

That this Board should consist of members representing all aspects of Sanskrit Education and Higher Studies—modern and traditional, academic as well as administrative—and all parts of the country, as also those representing private agencies and Research Institutes functioning in the field of Sanskrit;

That, while the Central Sanskrit Board might function in an advisory capacity in respect of the University Sanskrit Departments, it should have no statutory jurisdiction over them;

That, this Central Sanskrit Board should concern itself mainly with two fields of Sanskrit activity: (i) the

Pathasala education, and (ii) the privately organised Research Institutes in the country;

That the Central Board should be charged with, among other things, the formation of the patterns of Sanskrit Education at different levels; the co-ordination of courses, teaching, publication and similar other activities; the standardisation of syllabuses, examinations and degrees; and the defining of the qualifications of different types of Sanskrit Teachers and Research Guides;

That the Central Board should function as the agency through which the Central Government might grant subventions to the State Governments for purposes such as the maintaining of Sanskrit teachers in Secondary Schools;

That the Central Board should also function as the agency through which the Central Government might grant subventions to reorganised Sanskrit Schools and Colleges in order to enable them to pay to their teachers in various grades emoluments equal to those paid to teachers in corresponding grades working in general High Schools, Colleges and Universities;

That the Central Board should help the Pathasalas in the matter of accommodation, libraries and other equipment;

That the Central Board should concern itself with the question of adding Research Departments to higher Pathasalas and awarding Research Scholarships and Stipends to the products of the Pathasalas;

That the Central Board should advise the Government in the matter of the State Honours and Awards for Pandits recommended elsewhere;

That the Central Board should be vested with the authority to sanction the starting of Sanskrit Universities, to recognise them as statutory bodies, to make them suitable grants, and generally to control and direct their working;

That the Central Board should co-ordinate and financially help the activities of the privately organised Research Institutes and Manuscript Libraries in the country; and

That the Central Board should generally function in co-operation with the Central Institute of Indology and the Central Manuscripts Survey (XI.17-25).

The Commission recommends—

That in view of the great expansion of educational activities at the present time and the inadequacy of a single Directorate looking after all the different branches, the present Directorates of Public Instruction in the States should be split up, and separate Directors should hold charge of special branches, e.g. University Education, Technical Education, etc. and that, in such a reorganisation, Sanskrit should be placed under a special Director (XI.27); and

That, a sufficient number of Sanskrit Inspectors

should be appointed in the States and they be charged with the duty of regularly inspecting the Sanskrit Schools and Colleges in the respective States, particularly with reference to the fulfilment of the provisions of reorganisation (XI.26).

The Commission recommends—

That there should be equality in the matter of status, privileges, and emoluments between the Professors and the Pandits employed in the Universities; and

That the distinction between the Title-courses and the Degree courses should be abolished (XI.28).

The Commission thinks that it would not be advisable to make any sudden drastic changes in the matter of the various facilities, such as free tuition, free lodging and free boarding, which are at present available in many Pathasalas (XI.30-31).

In view of the fact that the significance and standard of Sanskrit studies suffer on account of the indifferent quality of the personnel recruitment for the various posts in the field of Sanskrit, the Commission recommends that only such persons, as possess appropriate qualifications for these posts (as set forth in XI.32-39) should be appointed to these posts.

The Commission recommends that, with a view to securing the unification of all cultural matters now scattered over more than one Ministry, the avoidance of duplication of work, the adoption of a single consistent policy, and the concentration of efforts in the matter of the cultural development of the country, the Central Government should constitute a separate Ministry of Culture and place all cultural affairs under that Ministry. The Commission believes that the setting up of such a Ministry will go a long way in promoting various activities in the field of Sanskrit (XI.44).

The Commission recommends that, as in the case of Scientific Studies and Research, so also in the case of Humanistic Studies and Research, particularly relating to Sanskrit and Indology, the Centre should show special concern. The Commission, indeed, feels that, in view of its peculiar position and significance, Sanskrit should receive a preferential treatment from the Central and the State Governments (IV.57-59).

The Commission recommends that, in the National Plans adopted by the Government, a substantial amount should be set apart for the development of Sanskrit on the lines set forth in the various Chapters of this Report.

The Commission recommends that, besides the major matters on which recommendations have been set forth above, several other matters which are referred to in the various Chapters of this Report and which are intended to further one aspect or another of Sanskrit Studies, should also be attended to by the Central and the State Governments.

THREE-YEAR DEGREE COURSE ESTIMATES COMMITTEE, 1956—REPORT

New Delhi, Ministry of Education, 1958. 23p.

Chairman : Shri C.D. Deshmukh.

Members : Shri K.G. Saiyidain; Shri G.F. Lakani; Shri K.L. Joshi; Shri C.S. Menon (Shri C.S. Menon was transferred and Shri A.C. Bose attended the first meeting; on his transfer, Shri A. Bakshi became the member); Dr. G.S. Mahajani; Dr. A.L. Mudaliar; Shri Vinod Chandra Sharma; Shri K.P. Sinha; Shri S. Govindarajulu; Dr. D.M. Scn.

Secretary : Dr. H C. Gupta.

APPOINTMENT

The Education Ministers' Conference held on September 2-3, 1956, gave further implements to the reform by recommending the appointment of a Committee to work out the estimates of expenditure to be incurred on introducing this reform, making it impossible for all universities to changeover to the new pattern. In accordance with the above recommendation a Three-Year Degree Course Estimates Committee was set up on October 1, 1956.

TERMS OF REFERENCE

The terms of reference of the Committee were as follows:

(1) To make recommendations regarding the best manner in which Three-Year Degree Course could be introduced in the affiliated Colleges and Universities in the country and the arrangements which would be made during the interim period for admission of students to the reorganised Arts and Science Colleges and the professional colleges as constituted at present till the new pattern is fully introduced;

(2) To frame the estimates of expenditure involved in the reorganisation of collegiate education implicit in the introduction of Three-Year Degree Course in Universities and affiliated Colleges;

(3) To suggest the proportions in which the expenditure may be shared between the Central Government and the State Governments for introducing the Three-Year Degree Course;

(4) To recommend the best manner in which interim grants from Central Government may be made to the State Governments for the year 1956-57 in case formulation of schemes by the State Government is delayed;

(5) To consider and examine the future of the Intermediate Colleges and such other problems as may be

ancillary to the main question of introducing Three-Year Degree Course;

(6) To consider any other issues which may be relevant to the question of introducing Three-Year Degree Course in the Universities and the affiliated Colleges.

CONTENTS

Introduction, Nature of the Problem; Financial Implications; Administrative Implications; Summary of Recommendations; Appendices—Terms of Reference; Report of the Sub-Committee of the Estimates Committee.

RECOMMENDATIONS

The Three-Year Degree Course should be introduced in as many universities as possible during the Second Five-Year Plan period.

The unit of reorganisation should be a university and not a college, so that no university will give two types of degrees for the same courses.

During the transitional period, students passing the Intermediate Examination should be admitted to the second year of the Three-Year Degree Course.

The total amount which would be required to introduce the reform including recurring expenditure for four years, will be about Rs. 25 crores.

The expenditure involved in introducing the reform should be shared between the Central and State Governments in equal proportion.

During the Second Five-Year Plan period, the Central Government should give Rs. seven-and-a-half crores, including Rs. two-and-a-half crores to be made available by the University Grants Commission. A similar amount should be found by the State Governments including contributions from Private Managements. The total amount available will thus be Rs. 15 crores which will be sufficient for upgrading 180 Intermediate Colleges and reorganising 300 Degree Colleges which should be taken as the targets for the Second Five-Year Plan.

There should be a public examination at the end of the pre-University Class.

Professional colleges should either conduct their own admission tests or select candidates for pre-professional courses on the basis of Higher Secondary/Pre-University Examination.

The number of students should be restricted to 800-1000 per college.

While the Three-Year Degree Course is introduced, steps should be taken to improve the quality of colleg-

ate education in general. For this purpose from the grants available, it is necessary to revise syllabuses, introduce General Education Courses, reduce over-crowding in colleges, improve the teacher-pupil ratio, strengthen

laboratories, replenish libraries and, wherever, possible, institute tutorial system.

The State of U.P. will present a special problem because of the entirely different system operating in that State.

SUB-COMMITTEE OF THE CENTRAL FRUIT PRODUCTS ADVISORY COMMITTEE ON CHUTNEY INDUSTRY IN INDIA, 1956—REPORT

Delhi, Manager of Publications, 1958. 35p.+vip.

Chairman : Dr. Girdhari Lal.

Members : Shri N.S. Pochkhanawala; Shri H.C. Bhatnagar.

Secretary : Shri P.H. Bhatt.

APPOINTMENT

The Central Fruit Products Advisory Committee set up under the Fruit Products Order, 1955, constituted a Sub-Committee on October 31, 1956 to enquire into the Chutney Industry in India.

TERMS OF REFERENCE

To survey the present status of Chutney Industry in India and to study problems faced by the industry particularly in augmenting the export trade and to suggest Plans for its development.

CONTENTS

Preface; Adoption of Resolution; Introduction, History of the Industry; Production; Method of Manufacture; Raw Material Requirements; The Investment Pattern of the Industry; Conditions of Factories; Quality; Research; Demand and Prospects; Summary and Recommendations; Appendices A & B.

RECOMMENDATIONS

The average production for five years for chutney is estimated at 734 tons valued at Rs. 13·6 lakhs.

The manufacture of mango chutney can be divided into two parts—(i) the pickling of green mango slices and (ii) preparation of mango chutney.

The manufacture of chutney is done according to the specifications of the Fruit Products Order, 1955.

The major raw materials required for manufacture of chutney are green mangoes, sugar, salt, vinegar or acetic acid, barrels, bottles, labels, fuel, spices and other packing materials.

The Sub-Committee feels that while pickling of green

mangoes, due attention is not given to the quality of the raw material as the manufacturers are inclined to an opinion that this does not reflect on the final product.

The Sub-Committee is of the opinion that in the interest of the chutney industry there is a need for reorganising the pickling industry and putting it on a footing which would not only give a product produced under hygienic and sanitary conditions and of a standard quality but also would safeguard the interest of the primary processors. A small cooperative processing unit can be operated if the Government assistance was available partially in the form of grant and partially in the form of loan.

The Sub-Committee also favours the proposal of expanding the scope of the primary processing societies which can undertake the manufacture of mango chutney.

The Sub-Committee recommends that immediate steps should be taken for establishment of fruit preservation unit at Malda in West Bengal.

Detailed specifications of pickled mango should be worked out and prescribed under the Fruit Products Order.

The Sub-Committee was given to understand that the revised procedure for rebate on excise duty of sugar used in chutney is likely to be announced shortly. This would give an impetus to the chutney industry.

The chutney industry would do well in utilising the better quality salt in pickling.

The chutney industry while making contract for purchases of bottles should give detailed specifications including alkalinity factor and get the various lots examined prior to final purchase.

The Sub-Committee is of the view that good quality corks at a reasonable price should be made available to the chutney industry.

There seemed to be an orthodox approach to various problems and considerations due to conventions and past practices seemed to weigh heavily in the matters of

modernisation and even in expansion of activities. Both at Bombay and Calcutta the Director of Industries gave the Sub-Committee to understand that the chutney industry had not approached for assistance in any form.

In spite of availability of accommodation in the factories it was observed that an unorganised manner of handling affected the working of the units.

In the factories the water line should be realigned so that the water can be made available to almost all the centres of processing departments.

More stainless steel equipment should be introduced by chutney industry.

The chutney industry would do well to employ steam cooking which would give better results and would avoid the smoke in the factory. This would also improve the quality of the finished products.

The Sub-Committee is of the view that most of the chutney manufacturers are in a position to instal adequate equipment and machinery. Facilities now being given by the Government to small scale industries should be fully utilised by the industry.

The performance of the chutney manufacturers in conforming to the quality standards prescribed under the Fruit Products Order has been creditable. A pilot scheme for continuous check sampling of all chutney manufactured at Bombay, Calcutta and Madras has yielded useful results.

The Sub-Committee recommends that arrangements should be made for analysis of fruit products samples at the port towns and a system of certification of quality standards according to the minimum requirements under the Fruit Products Order should be started as early as possible. Such a measure would help considerably in export promotion.

It would be advantageous if, most of the manufacturers agreed with the view that a procedure is worked out in consultation with the traders according to the grade and the specifications to be provided under the Agricultural Produce (Grading and Marking) Act, 1937.

The Sub-Committee recommends that a Senior Research Officer should be entrusted a project on chutney at Central Food Technological Research Institute, Mysore. There has not been much work done in preparation and processing of chutney.

Nearly 82 to 83 per cent of the production of chutney was exported.

As there are many resources for developing the chutney industry in India the Sub-Committee recommends that the intensive area scheme for village industries of

the Khadi and Village Industry Board as well as some of the Community Development Block should include processing of green mango pickling.

For developing demand within the country the industry should participate in more exhibitions, produce leaflets and pamphlets as well as for developing new recipes to suit the indigenous tastes. There is also need for introducing more varieties of chutneys made of different fruits and vegetables. The prospective demand within the country is estimated to be 500 tons per year by 1960-61.

The Sub-Committee recommends a ban for next five years from 1958 on export of pickled mango which is a raw material for chutney industry.

Although chutney exports are as much as 50 per cent of the total exports of fruit products, the export of chutney has been more or less stationary. This situation, the Sub-Committee feels is due to the lack of incentive amongst the manufacturers.

There is likelihood of serious competition in the chutney trade in the world market. Even to maintain the existing exports the chutney industry should concentrate more on quality, on selling under their own brand and on intensive propaganda and publicity.

The excise duty rebate on sugar used in exported chutney should be collected as a fund to start an export promotion organisation. The Government should make a contribution to this fund on the basis of what is being done for other export promotion councils.

A proposal for forming an export promotion council for all fruit products may be studied and its feasibility examined by the Ministry of Food and Agriculture.

The chutney manufacturers should collectively take up advertising of the Indian mango chutney in foreign markets. Attractive pamphlets and brochures depicting the qualities of chutney should be prepared.

Some European countries are importing mango chutney through established importers in U.K. The expansion of our trade in this country is most likely if our trade representatives bring these parties in contact with our manufacturers.

A reported ban on imports of fruit products from India in certain European countries should be investigated and an attempt be made to remove the same.

Although in trade agreements with some countries export of fruit products has been included, no useful results have been achieved. Our trade representatives may be requested to explore possibilities for promotion of export of chutney as well as other fruit products.

COMMITTEE OF ENQUIRY INTO DEMANDS OF LABOUR OF PORT AND DOCK WORKERS, 1956—REPORT

New Delhi, Ministry of Transport and Communications, 1958.
353p.+xivp.

One-Man

Committee : Shri P.C. Chaudhuri.

APPOINTMENT

The Committee on Port and Dock Workers, Enquiry into Demands of Labour was constituted under the Ministry of Transport and Communications on November 27, 1956.

TERMS OF REFERENCE

(i) To enquire into the disparities and anomalies in the pay scales and allowances of Class III and Class IV employees of the Major Ports and to submit proposals for their rationalisation.

(ii) To consider the question of reducing to a minimum the number of casual shore workers and the drawing up of departmental schemes for decasualisation, and to examine the disparities between the wages of permanent, temporary and casual workers and between those of shore labour and stevedore labour on time rate.

The enquiry was also intended to cover posts, corresponding to Class III and Class IV posts in the Major Ports, under the Dock Labour Boards, subject to the proviso that the final decision would rest with the respective Boards.

The terms of Reference further included a number of items relating to the conditions of service of Port and Dock Workers such as working hours, night work, weekly off, provident fund, retiring gratuity, overtime payment, holidays and leave.

CONTENTS

Introduction; Part I—Major Ports; Factors Bearing on Rationalisation; Rationalisation of Pay Scales; Part II—Decasualisation of Shore Workers; Turnround of Shipping and other connected Matters; Part III—Retirement Benefits; Working Hours, Night Shift and Weekly Off; Overtime Work and Rate of Payment; Leave, Holidays and Other Privileges; Tables I to LXXIII.

RECOMMENDATIONS

Factors Bearing On Rationalisation Of Pay Scales And Allowances

Considering the limitations of the various methods and the time and expense involved, it is hardly worthwhile

adopting the highly specialised techniques of the Factor-Comparison and point methods for the evaluation of any sets of posts in the Major Ports. An appreciable number of posts, as will be explained later, can easily be identified and their function and responsibilities determined with a fair amount of accuracy from the material already available. For certain posts peculiar to ports, particularly in the Marine/Port, Deputy Conservator and Engineering Departments, additional information would have been helpful, but even in these cases it does not seem difficult to evaluate and grade them for the purposes of working out pay scales most appropriate to them, by bearing in mind the principles of Ranking and Classification. In formulating my proposals for rationalisation, therefore, it has not been necessary to go beyond the first two qualitative methods.

Rationalisation Of Pay Scales

The basic minimum scale for Class IV should be revised to Rs. 30-1-35 in all the Ports. Similarly, the basic minimum scale for Class III staff employed in Clerical duties and for whom Matriculation or equivalent qualification is prescribed as the minimum, should be Rs. 60-3-81-4-125-5-130. Apart from this any other alteration in the present wage structure not based on the recommendations of the Central Pay Commission is not considered to be within the Terms of Reference of this enquiry.

It has not been possible to embark on a detailed job evaluation partly because of the limitations of time and partly because of certain practical difficulties which stand in the way of the application of Factor Comparison or Point Rating methods. The method adopted has, therefore, been to choose certain categories in each Department and endeavour to fix the appropriate pay scales in the light of the recommendations of the Central Pay Commission for comparable posts under the Central Government. There is, however, a clear necessity for work studies to be undertaken by Port Administrations if problems of this type are to be solved in absolute terms.

As regards other posts, fixation of pay scales will have to be done by the Port Administrations having regard to the inter-departmental and intra-departmental relativities and differentials. While due weight has to be given to the last two factors, the Port Administrations should seek to 'broadband' categories of staff;

weightage should normally be given to the above factors only if these would result in a material alteration of the pay scales or a translation into another standard scale prescribed by the Central Pay Commission.

The possibility of introducing any system of payment of results in the Technical Departments, particularly in regard to categories like Tally Clerks, Crane Driver, etc., should be considered further by the Ports.

In many Administrative Departments, the proportion of Upper Division clerical cadre to the Lower Division and the proportion of the Supervisory staff to the clerical strength is quite low in most of the Ports; higher proportions will be more in consonance with work requirements also.

In the Accounts Department, the Port Administrations of Calcutta and Bombay should examine the possibility of prescribing Departmental Tests to regulate eligibility for appointment to supervisory posts in their Accounts Departments. It is also suggested that the present designations in those Ports should be changed to Junior and Senior Accountants.

The Port Administrations should make a beginning towards the introduction of the Messenger system.

There seem to be weighty reasons for the transfer of control of certain Special Departments like the Port Railways, Lighthouses and Fire Services to the Railway Board, the Central Lighthouse Department and the Fire Services Organisation of the State Governments concerned. This, however, is only a suggestion.

Medical facilities should be pooled between the Port Administrations and the Dock Labour Boards.

While it is premature to suggest any radical changes in view of the fact that the Dock Labour Boards have commenced functioning only recently, there is a possibility of effecting uniformity among the Dock Labour Boards even now by adopting the standard pay scales for Lower and Upper Division Clerks and higher posts. It will be a good principle to follow if both the Port Administrations and the Dock Labour Boards keep one another informed of material revisions in the pay scales and other conditions of service.

The fixation of pays of staff who have elected to come on to the new pay scales should be done on the basis of one increment for every three years of services as was done by the Central Government when implementing the recommendations of the Central Pay Commission. It may be possible to avoid anomalies by readjusting the dates of their increments in respect of periods falling short of multiples of three years.

While the existing staff will naturally have the option to retain their old pay scales if they are more advantageous, it will not be equitable to freeze at a higher level such of the posts whose pay scales at present happen to be higher than those justifiable in the light of the recommendations of the Central Pay Commission.

In the absence of further information in regard to the practice in other State Governments and in view of the fact that the pattern of pay scales of Central Government on which the above proposals are made is different from the pattern of the pay scales of State Governments, it has not been found possible to recommend payment of 'unclean allowance' which is now being paid in Bombay Port to sweepers in other Ports also.

The desirability of providing suitable avenues of promotion requires special emphasis.

Decasualisation Of Shore Workers

The Ports should make every endeavour to keep contract labour below 25 per cent of the total strength of shore labour.

Steps should be taken to approximate the wages paid to contractors' labour on the same basis and at the same rates as those paid to Port labour.

In assessing the required strength of shore labour the following should be regarded as relevant factors:

- (a) Volume of trade and its variations;
- (b) Types of cargo to be handled;
- (c) Availability of mechanical aids;
- (d) The rate of output of labour; and
- (e) General working conditions.

The minimum labour strength shall be calculated by taking the average daily attendance figures of permanent as well as of casual workers in the last five years; the average daily figures shall be increased by 20 per cent to provide for absenteeism and leave reserves; 75 per cent of the gross total thus obtained shall be the number of workers to be included in the Permanent Register; the remaining 25 per cent shall be the number of workers to be included in the Temporary Register.

Peak requirements will be met by the employment of non-registered labour on the recommendations of Registration Committee provided that the period of their engagement shall not exceed 10 per cent of the strength of the Temporary Register.

Port administrations may examine whether action should not be initiated through the Registration Committee or special agencies of the collection of statistics for further investigation with a view to facilitate the proper allocation of heavy and light work among the workers.

The registered labour shall consist only of two categories, Permanent and Temporary.

Two registers shall be maintained one each for the Permanent and Temporary categories; within each category the names of the workers shall be entered in the strict order of seniority. - The register should contain information regarding the name of the worker, his address, date of entry into service, the scale of pay and all such information which may be necessary for the retention, promotion or when called for removal of the name of the worker from the register.

Workers in the Temporary Register should serve as a reservoir to fill up vacancies in the Permanent Register.

Both categories of workers shall be entitled to the payment of attendance money, the benefits of Workmen's Compensation Act, medical assistance, housing facilities, weekly days of rest, etc.

Workers on the Permanent Register will be entitled for the benefit of Provident Fund, special contribution, leave, holidays, etc., under the rules and regulations applicable to the permanent staff of the Ports.

The worker will be liable to undertake any kind of work included in the expression 'shore work'.

A Registration Committee should be formed of three members, one representative each of shore labour and of shipowners with the Chairman of the Port Trust or the Administrator of the Port as Chairman, the Committee shall have power to co-opt the Regional Labour Commissioner or the Traffic Manager for expert advice and assistance.

The Registration Committee shall screen all entrants and classify them according to the registers, go into the question of labour rendered surplus after decasualisation and be responsible for periodic revisions and adjustments of the register.

Where there is sufficient work for both categories the work on the third shift should be shared between them on a strict principle of rotation.

Attendance money for temporary workers should be the same as that for permanent workers and preferably at annas 12 a day.

The constitution of a gang shall be in accordance with the existing practice in the Port; there should be a differential in the payment made to the head of the gang who directs work and the labour who works under his direction.

Seniority, merit and fitness as well as past services should be the basis for promotion as leader of the gang.

The central call stand should be so located as to enable workers to reach the place of work before the shift is due to begin.

Where there are more than one call stand, there should be telephonic communication between stands and transport arrangements to carry labour from one stand to another.

The conditions of the call stands for shore workers require considerable improvement and should conform to the standard laid down for stevedore workers by the Dock Workers (Regulation of Employment) Enquiry Committee Report, 1955.

The normal age of retirement should be 55 years with the option to the Ports to retain workers who are physically fit upto the age of 60 years.

The Ports shall examine the possibility of reducing the number of attendances at call stands particularly by permanent workers.

The minimum wages of decasualised and casual shore workers in Ports should be equalised.

No incremental scale for casual shore workers appear necessary, the better course of action will be to keep the proportion continuously under review to bring the casual workers on to the Permanent Register to the extent possible.

In the present conditions a higher rate for stevedore work seems to be inevitable; but without seeking to anticipate the conclusions of the Tripartite Committee, which is going into the question of introduction of piece work rates, it can be reasonably assumed that the differentials between the wages of stevedore and shore labour will be further narrowed down.

A Model Scheme for direct employment of shore labour has been framed for adoption by the Ports.

The Major Ports should consider the possibility of working out suitable schemes of transfer agreements with the Minor Ports on a selective basis.

Casual labour rendered surplus must be given preference over fresh labour for enrolment in the Temporary Register.

Turn-Round Of Shipping And Other Connected Matters

If a Port is to function properly and continuously, it must have a margin of capacity to enable it to meet sudden or seasonal increase in traffic without congestion.

What is specially important is to regulate the flow of cargo in and out of the docks. This cannot, however, be achieved by unilateral action by the Port administrations and calls for the cooperation of all interests concerned. This may also require a certain conformity to discipline which may be regarded as irksome, though difficulties of individual consignees should receive special considerations.

It would not be proper to minimise in any way the extra cost and wastefulness of congestion in a Port. It is probable that some of the congestion is unavoidable in certain circumstances; this is particularly true of the aftermath of strikes or 'go slow' practices which inevitably lead to a subsequent rush of traffic to clear. Congestion may also result from other circumstances as when foreign shippers, anticipating import restrictions, send out in a hurry as many consignments as possible in the hope that the goods might be cleared at the receiving end, on the plea that these had been ordered long before the restrictions were announced.

Unless proper arrangements on a coordinated basis are made in advance, difficulties will continue. It has been estimated by a representative of shipping interests that in the next few years, 80 per cent of the inward cargo will be Government imports; it has, therefore, been suggested that steps should be taken at the highest level to arrange for the routing of such shipments not only as between the Major Ports but also to Minor Ports where

they can be cleared overside into lighters. For this, however, it has been stressed, there must be forward planning at all levels and continuous supervision of its implementation.

The need for detailed planning over a definite period in an under-developed country has been stressed in the First Five-Year Plan. It has been emphasised that "while there is need for concentrating effort on the more immediate problems, planning implies the readiness on the part of the community to view the social process as one whole and to take action designed to shape this process along desired lines for a definite period. Planning as an approach to a rational solution of problems has been accepted. Difficulties may of course arise when policies change or targets are not reached in time. In the matter of foodgrains, the Ports, following the announcement in June, 1949 of complete self-sufficiency by 1951, could hardly envisage and be prepared to deal with foodgrain imports of the present dimensions. With regard to exports, planning can bear excellent results and eliminate congestion at Ports if there is full coordination between all concerned. The routing of traffic should be possible provided there is forward planning based on precise data.

As a substantial portion of the imports particularly of bulk cargo are on Government account, and orders are invariably placed in advance, it should not be difficult to arrange for the routing of ships to different Ports according to a phased programme. The State Trading Corporation have already given much thought to the routing of their exports of mineral ores and other commodities through all available Ports nearest to the sources of supply. A similar approach in regard to the imports of large quantities of foodgrains, iron and steel, machinery, etc., by landing such goods at Ports nearest to the destinations will be an important method of solving the problem of congestion. For this however it is essential to have adequate information about end-use and destination, as also about the facilities available at the Ports for the handling, storage and onward despatch of such cargo. It was the practice, in the earlier days of import control to mark import licences with the name of port of destination; this was done with a view to conserve shipping space and make the best possible use of rail or road transport services. If a similar procedure is now followed, it should not only relieve the burden of some of our Ports and the Railways, but also ensure quicker distribution to the end-use area.

It is essential for the success of any routing of traffic to Ports that there should be complete coordination of sea transport with all other forms of transport.

Considering the successful way in which lighters have been used in the Port of Calcutta for one side handling of cargo and the importance attached to lighterage in other important Ports, there is no adequate reason why

this means of expediting the turn-round of ships in the harbour should not be utilised to a greater extent in other Major Ports, particularly in Bombay and Madras.

A point which may have to be considered is the effect of clearance by lighters on the Ports' finances. In Madras Port, no separate charge is made for the use of lighters, which are freely lent on requisition for export work; any extra cost involved is already covered by the Port dues. It is possible that the increased use of lighters may lead to some reduction in Port dues, but in the paramount interest of a quick turnaround of shipping, this should not stand in the way of more lighterage facilities. In London, there is in fact a Free Water Clause in the Charter of the Port Authority. A similar provision may well be made at our Ports.

If an adequate and well-equipped fleet of lighters is maintained by the Port authority and is made available on a reasonable charge, it will encourage the best possible use of this mode of transport.

In the Port working of lighter traffic, it is essential to ensure continuous cooperation between all concerned so that the right craft come alongside the ship at the right time, having due regard to the stowage of the ship and the availability of particular cargo; if this is lacking, congestion and delays will remain unsolved.

From the point of view of quicker turnaround of shipping, new forms of transport, particularly road haulage and river and canal navigation, are also required to be encouraged. Road transport, if properly regulated, need not adversely compete with the Railways, but rather act as a feeder to them and take off them some of the burden which they are at present unable to carry. Shipping and Ports—the links between the sea and inland transport—must grow in importance if India is to attain economic prosperity.

In some ways, particularly over moderate distances, road haulage has an advantage over carriage of goods by rail. Though the Railways have made considerable progress, it cannot be said that there has really been substantial improvement in the locomotive speed of goods trains, except on the more expensive Parcel Expresses, during the last forty years. Cross-country journeys by rail are often slow and usually involve changes, with long waits at Junctions; a direct route taken by a motor bus can be much quicker and even cheaper. If this be true of passenger traffic, such advantages can also apply to the carriage of goods by motor trucks where direct routes are available.

The Docks at most of the Ports, particularly the Major Ports, were originally built mainly for Railway feeder services and road connections as such were not thought of except for purposes of local transit. If advantage is to be taken of road haulage, steps will have to be taken to construct proper roadways to give access to the quays. There will also have to be careful coordination

between rail and road traffic so that one means of transport does not get into the way of the other; an example of the present difficulties is a roadway in one of the Ports, which traverses three sets of railway lines in less than two hundred yards.

If the removal of cargo from the transit sheds and warehouses of the Major Ports is to be expedited by road haulage, it is obvious that there will have to be a substantial improvement in the supply of trucks. Apart from this, considerable improvement will have to be undertaken in the Ports themselves by the provision of road terminals, better road approaches, spaces for parking and turnaround; proper loading and unloading bays, suitable handling equipment, etc. It has been observed that "Ports which have not modernised their truck facilities are finding the problem of traffic congestion and turnaround delay an increasingly costly one." It is recommended that early steps be taken to make a thorough assessment of the immediate and long term possibilities of road haulage; this is all the more important for our Major Ports in view of continuing inability of the Railways or for that matter of other means of transport such as inland waterways to meet all the requirements of the Ports. In examining the problem with reference to our Ports, it should be considered what steps can be taken to remove any complication arising out of the traditional use of bullock carts.

In the interests of developing inter-State traffic, it was considered desirable that an agency controlled by the Central Government should be set up to regulate the operation of transport vehicles on inter-State routes.

The use of coastal shipping to any appreciable degree to relieve the congestion in the Major Ports will depend on the availability of a sufficient fleet of sailing vessels. As the Sailing Vessels Committee had pointed out, the lack of organisation among owners of sailing vessels is a serious impediment and will have to be removed as an initial measure before the industry can be developed.

It has been suggested that in order to enable the coastal vessels to obtain cargo for their return journeys, encouragement should be given to industries to develop in the regions of the Minor Ports also.

A number of Minor Ports may not be able to function effectively to take over excess cargo from the Major Ports; this will be mainly due to the lack of rail facilities. Coordination between rail and sea transport is thus necessary in the interests of the working of the Ports in general and the progress of our coast-wise trade.

It must be recommended that the transit sheds are designed on the assumption that there will be a reasonably steady flow of goods, through them, from wagons, trucks or carts, to the ship or from the ship, through them again, to wagons, trucks or carts. If circumstances prevent cargo from being moved continuously, the sheds inevitably become congested thereby adversely affecting

the unloading of export cargo from wagons etc., and retarding the onward movement of imported goods. The problem could be eased if the sheds were larger, but apart from the additional overhead cost, the location of the transit sheds may be such that it may be physically impossible to enlarge the sheds. This may well be illustrated by the position in Madras, where it is difficult to find any space for expansion within the harbour. Nevertheless, in the general interest of removing congestion and making it easier for the Port and Dock workers to carry out their duties unhampered—an aspect which has been stressed by the representatives of labour—it is desirable that, within the limitations indicated above, steps should be taken to improve shed accommodation at all the principal Major Ports of Bombay, Calcutta and Madras. There should be the maximum freedom of movement about the shed, unimpeded by physical obstructions and aided by an ordered sequence of operations. The sheds should also be well equipped with suitable devices so that there is a minimum risk of bottlenecks. It may be mentioned that since the War, in foreign Ports, improvement has been effected by joining existing sheds on the quays to provide sufficiently large unloading bays to enable more vehicles, in one case a maximum of 17 vehicles, to unload simultaneously under the covered section of the main dock.

Attention will also have to be paid to warehouse facilities at the above three Ports.

Goods are not merely stored in warehouses but have to be dealt with in numerous different ways. A common aspect of this branch of Port activity is in the case of bulk importation, storage at the Port over a period, and gradual sub-division and forwarding in hundreds of small consignments. This is an important commercial function performed at Major Ports which are situated in large distributing centres. Here is an opportunity to introduce a number of modern techniques. Some of the new methods of cargo handling, such as the unit load operation, can lead to a doubling or even trebling of the capacity of a warehouse.

The handling of general cargo, raises many problems on account of the varying sizes and shapes of packages. The more important mechanical appliances that have been developed recently in the handling of general cargo are electrical mobile trucks, mobile diesel cranes and, by far the most important and useful, the fork lifts. While fork lifts are used in Bombay and certain mobile cranes are available in all the Major Ports, there is a similar need for the introduction and greater use of fork lifts in all the Ports. The fork lift is useful for the quick handling of any type of general cargo not only on the quay but in the sheds and should obviously be utilised in larger numbers.

There is scope for the elimination of wasted time and effort both by improvement in the organisation of the

work and by the introduction of mechanical aids. Disproportionate efforts now incurred by moving cargo solely by manual labour could be effectively reduced, and labour employed more productively, by moving traffic from point to point at the dock and in transit shed and warehouse by mechanical means. It should be borne in mind that most of the ships calling at our Ports are foreign-owned and many of them are equipped with the latest machinery for the handling of cargoes, to enable our shore labour to keep pace with the work on the hatches of such ships, it is necessary to provide our workers with correspondingly efficient mechanical aids. Cargo handling in our Major Ports can be greatly improved by the more frequent use of fork lifts, mobile cranes and similar appliances.

Work study in selected departments, as in the engineering department and those relating to cargo handling, will be helpful in finding out the anomalies and defects of the existing system and in suggesting ways of improvement so that equal effort can be equally rewarded. Such studies cannot, however, be successfully conducted without the cooperation of the workers themselves; it is therefore desirable that the arrangements for the studies should be made after due consultation with the representatives of Port and Dock workers. As it is, one of the complaints of Labour is that the existing rates of payment were on the basis of past records, some of which were not sufficiently detailed to be reliable, rather than on any kind of work measurement. In such circumstances, it would be all the more necessary to introduce the use of work study.

In the course of the present enquiry, it became increasingly evident that there was no uniformity in the collection of basic data and this rendered a comparative study of the precise duties and functions of various categories of employees at the different Ports difficult. As the objective of uniformity and the principle of equal pay for equal work have been emphasised, as in the Terms of Reference for this enquiry, it would be advisable to initiate a uniform system of collection and maintenance of statistical material by the Ports. The details of some of the requirements of statistical data were suggested by the Port and Shipping Statistics Committee in their Report in July, 1954. For purposes of ready reference and comparison, it would be helpful if the Administration Reports of all the Major Ports are prepared in accordance with definite and uniform proformas; in this matter, the Bombay Administration Report with certain additions, would be a suitable model.

In employment like those in the Major Ports it is clearly to the advantage of both the administration and the employees to have proper schemes of training. Such training becomes all the more necessary if tests of fairly high standards are prescribed to regulate promotions and confirmations after completing a period of probation.

In the Railways, there are as many as 24 Training Schools for the Railway staff, some of which are technical schools attached to the Railway Workshops to train apprentices for eventual appointment as skilled artisans or as supervisors or skilled workers. Refresher and promotion courses have also been arranged. Training on similar lines can be fruitfully undertaken by the Port administrations also. It might be useful to arrange for the training facilities on a joint basis with the Dock Labour Boards if maximum results are to be achieved with the minimum of outlay.

Apart from technical training, a properly planned programme of adult education, encouraging and understanding of the problems of the transport industry and of the means to solve them, is sure to make a vital contribution to the efficient working of the Port. There is also a need for a literacy drive among the class IV staff.

Retirement Benefits

In regard to all categories of staff to whom the Provident Fund Rules apply the rules should be uniform throughout. Any rule in which a particular class of employees has been accorded a lower scale of benefits should be amended to remove the discrimination.

In respect of Port employees governed by Provident Fund Rules the rate of subscription and contribution should be at eight-one-by-three per cent of basic wages and dearness allowance in full. Local compensatory, house rent and overtime allowances should be excluded.

For workers remunerated on a piece work basis, no specific recommendation is made in view of the fact that revised piece-rate scheme for some of the Ports is under consideration.

Eligibility to subscribe to Provident Fund should be determined with reference to the fact whether the employee has been taken on a permanent or temporary basis. In the latter case the subscription should commence only after one year's service has been completed.

No liberalisation in the present rules relating to sanction of advances from Provident Fund is called for. As accumulations in the Provident Fund are also regarded as being held in trust for the benefit of the family of the employees, there is scope for even tightening the present rules.

Without conceding that retirement benefits are in the form of deferred wages, there is ample justification for amending the Provident Fund Rules to provide for payment of the Port's contribution as well as Special Contribution in the event of any kind of discharge other than that caused by misconduct involving loss of the Port's funds.

For the purpose of the application of the Provident Fund Rules, the pay limit up to which an employee can be considered as Class III should be placed at Rs. 500 and for Special Contribution in Bombay and Madras

Ports according as the employee draws a pay of more than Rs. 320 or Rs. 300 or not should be amended accordingly.

There should be a separate Board of Trustees for the management of Provident Funds, in which Labour should be represented, the Board will be responsible to the Port authority.

Special contributions should be regulated on the basis of one month's emoluments for each completed year of service up to a maximum of twenty-five years. Only basic wages and dearness allowance in full should be treated as emoluments for this purpose.

As has been suggested in the case of Provident Fund, the rules relating to Special Contribution should be made uniform for all staff drawing pay up to Rs. 500.

The remarks offered earlier in regard to withholding of the Port's contribution in the Contributory Provident Fund apply also to the Special Contribution.

The increase in Provident Fund accumulations and Special Contributions should be converted into annuities of the joint and survivor type. It may also be necessary to amend the relevant sections of the Port's Acts in order to provide, in the Provident Fund Rules, for annuities on a compulsory basis.

Working Hours, Night Shift And Weekly Off

In the result I am clearly of opinion that the existing 48-hour week should be retained except in the case of office staff who have been dealt with separately and certain intermittent workers for whom a 75-hour week is recommended. This will not place any undue strain on the workers but will on the other hand ensure greater productivity. The crux of the problem of working hours is to decide the length of the working time best suited to a particular stage of social and industrial development. It is my considered opinion that a 48-hour week should achieve the required balance between the workers' right to improved working conditions and the imperative needs of the Second Five-Year Plan. In conclusion, my specific recommendations are as follows:

(i) While a progressive reduction of working hours is a desirable objective, there is no special reason to place the Port Transport Industry on a separate footing; the number of working hours should remain at 48-hours a week;

(ii) Certain categories of staff in the Marine, Lighthouse and other Departments, whose duties are essentially intermittent in character, should observe a 75-hour week; their classification should be undertaken by the Port Administrations; running allowances should be paid to such workers;

(iii) There is no justification for a further reduction in the working hours of the clerical staff by an increase of the lunch interval;

(iv) The working hours of the clerical staff posted to

work along with technical staff on outdoor work should be on the same basis as for the latter category;

(v) The working hours of certain Class IV staff attached to offices of the Bombay Port Trust should be on a par with those of other staff subject to slight modifications;

(vi) The port authority should consider the desirability of arranging transport facilities for the workers; where for administrative or other reasons they are unable to do so, evening and night workers should be reimbursed the equivalent of the bus or tram fares when the journeys occur between 11 p.m. and 5 a.m.; and

(vii) Time spent in transit to and from the place of work within the Port during working hours should in all cases be counted as on duty.

Shifts should be as continuous as possible, with comparatively short intervals in between, as at present in Bombay Port.

There should be a uniform night shift of six hours.

The hourly rate for workers on night shift of six hours should be at the rate of one-sixth of the normal wages.

As far as possible, recess periods should be in the middle of the shift.

Recess periods during shifts should be regarded as effective breaks and subject to the exigencies of work, the workers should be permitted to be away from the place of duty.

A few minutes off for smoking should be granted if so desired by a worker.

All Port and Dock workers, except workers in whose case it is not feasible to give a weekly day of rest, should be given a weekly off with full wages after six days' consecutive work.

It will not be obligatory on the Port Authorities to fix Sunday or any other fixed day as the weekly day of rest for all workers but they should try to make suitable arrangements to the extent possible.

The principle laid down in the Award of the Labour Appellate Tribunal, Bombay, in regard to payment for work on weekly day of rest should be followed in the case of all workers with the exception noted above.

Class IV Conservancy Staff should work in rotation on Saturday afternoons and holidays and such workers should be paid overtime at double rates for the period.

Overtime Work And Rate Of Payment

Any additional hours of work in excess of nine hours a day or 48 hours a week, whether or not the worker concerned comes within the purview of the Minimum Wages Act, should be paid for at double the rates.

In principle, the payment of overtime to the clerical staff working short of the general limit of working hours prescribed for other workers does not seem to be justified.

Except in the case of Marine Staff, overtime at double the normal rate should be paid to essentially intermittent staff for work in excess of 75 hours a week and a compensatory allowance should be evolved to replace the present *ad hoc* overtime.

For such Marine Staff whose work is essentially intermittent in character, a scheme of allowance similar to running allowances paid to Railway staff should be evolved; these allowances should count for leave salary, provident fund etc., to the same extent as in the Railways.

A worker should not be called upon to undertake a second consecutive shift except in emergencies when he should be compensated by being paid at overtime rates.

For daily rated workers whose daily wages are determined by dividing the monthly wages by 26, the hourly overtime rate should bear a proportion of 1/208 of the monthly wages instead of 1/240.

Overtime should be calculated on the basis of the entire emoluments drawn by a worker while on regular duty. Emoluments for the calculation of overtime should include house rent allowance also.

Leave, Holidays And Other Privileges

The Leave Rules should be uniform for all categories of staff as well as for decasualised shore labour. In particular, the Rules for the Class IV staff should be brought on par with those for Class III. Similarly, the difference in the Rules applicable to the scheduled and non-scheduled permanent staff, as regards the limit of accumulation of earned leave and eligibility to special disability leave, should be removed.

The present ceilings for the accumulations of earned leave or commuted leave need not be disturbed.

Payment of leave salary in lieu of leave not taken by a worker because of his discharge will not be justified.

The demands that no limit should be placed on special disability and sick leave on full pay, commuted leave, and extraordinary leave are not recommended for acceptance.

Casual leave should be made uniform, at fifteen days in a year, for all categories of staff other than casual labour. This is intended to compensate for the situation that may arise out of the suggestion that there should be no closed holidays in the Ports.

A weekly off-day or holiday should be allowed to be prefixed or suffixed to a period of leave.

It is difficult to fix a definite percentage for leave reserves; depending on the necessity for providing immediate relief, the percentages may vary from 10 per cent to 20 per cent.

The possibility of simplifying the Leave Rules by introducing a system of lump credits on the first day

of each year and the payment of a fixed sum as leave salary in the case of decasualised shore labour deserves further examination.

It is necessary that loading and unloading operations in Ports should continue without interruption; there should be no closed holidays for workers employed in handling of cargo and others engaged in work considered essential in that connection; the persons concerned should work on a roster.

The number of holidays for other staff should be fixed at 16 as observed in the Posts and Telegraphs Department; payment for work on holidays should be in accordance with the principle enunciated in the Award of the Labour Appellate Tribunal.

There is no justification for the grant of overtime allowance to the Office staff who work occasionally on holidays; they may have, when possible a compensatory day off within a stipulated period.

The general demand of labour is that the concession should be restored and also extended to cover journeys performed by steamer or road. In opposition to this, it has been urged by certain employers that it is nowhere the practice for any organisation other than the one which is actually engaged in transport services to give such concession to its employees, and that unlike the Central Government employees, the Port and Dock workers are not subject to transfer. As against this point of view, it has to be borne in mind that the principle of according certain privileges has already been considered and recognised. A concession of this type enables a worker to proceed home on short spells of leave; such an opportunity for rest and recuperation in the surroundings of one's own home can only add to the efficiency of the worker returning to duty with renewed health. The restoration of the concession in the form in which it has been applied to the Government servants is, therefore, recommended.

At present no concessions are given for journeys performed by water or road. It was pointed out, in the course of discussion, that a large number of Port workers in Bombay come from districts which are not conveniently connected by rail. The concession in the present form will, therefore, not be of much use to them. In any case, it does not seem very logical to distinguish between the modes of travel for a concession of this nature. It is, therefore, recommended that a similar concession should also be given for journeys by sea, river or road transport to and from places not connected by rail; the concession should be based on the same principles as have been laid down for the P.T.O. concession, that is, the minimum distance should be excluded and the concession should be admissible only once in two years.

JUDICIAL INQUIRY INTO THE CAUSES OF THE ACCIDENT TO TRAIN NO. 603 TUTICORIN EXPRESS BETWEEN ARIYALUR AND KALLAGAM STATIONS ON THE SOUTHERN RAILWAY ON NOVEMBER 23, 1956, 1956—REPORT

New Delhi, Railway Board, 1957. 53p.

One-man

Commission : Shri Himansu Kumar Bose.

APPOINTMENT

By a notification of the Government of India, Ministry of Railways (Railway Board) bearing No. E (AO) 56 AP 1-7, November 30, 1956, and published in Part II, Section 3 of the Government of India Gazette of December 1, 1956, the Central Government notified as follows:

"Whereas the Central Government is of opinion that it is necessary to appoint a Commission of Inquiry for the purpose of making an inquiry into the causes of the accident to Train No. 603 Tuticorin Express at Mile 170/14-12 between Ariyalur and Kallagam on the Villupuram—Trichinopoly (Chord) line of the Southern Railway at 5.30 hours on November 23, 1956;

Now therefore, in exercise of the powers conferred by Section 3 of the Commission of Inquiry Act, 1952 (60 of 1952), the Central Government hereby appoints a Commission of Inquiry consisting of Shri Himansu Kumar Bose, a judge of the High Court at Calcutta, as its sole member."

TERMS OF REFERENCE

(i) Make an inquiry into the causes of the said accident and for that purpose take such evidence as may be necessary;

(ii) State its findings as to causes of the said accident and as to the person or persons if any, responsible therefor; and

(iii) Suggest safeguards against similar accidents in future.

CONTENTS

Report; Annexure A.

RECOMMENDATIONS

Unprecedented and unforeseen flood in the river Marudayar and in the areas around the embankments of the river, caused erosion or scour under and around the southern abutment of the bridge No. 252 and its approach, and when the Express Train No. 603 reached the spot of the accident, seventy feet of the approach to the bridge beyond the southern abutment, collapsed or had already collapsed, due to this scour or erosion, and this resulted in the accident.

Some points have been made that the accident was due to defective design and construction of the bridge and its abutments or was due to the bridge being constructed at a site which was not suitable, but it appears to me on the evidence as placed before the Commission that there is no substance in these points. These aspects of the matter, therefore, need not be considered any further.

The following safeguards are suggested for prevention of similar accidents in future:

(a) The foundations of abutments of bridges resting on screw piles should be strengthened and construction of rivetments or pitching of the river banks or margins on either side of the abutments to a sufficient length, should at once be undertaken.

(b) The rules in Chapter X, XI, XIV and XVII of the Indian Railway Way & Works Manual should be rigidly observed and mere nominal compliance should be avoided. Engineers and Inspectors should be instructed to explain the rules to the staff before and during the monsoon each year.

(c) On sections where Railway quarters are not provided to patrolmen, at least two patrollers should be appointed for each beat from experienced gangmen specially trained for the purpose.

(d) The length of beat of patrollers should not exceed three miles.

(e) Night patrolmen should have as part of their equipment a strong electric torch to enable them to observe the level of water and the strength of current flowing through the bridges or along the abutments.

(f) Patrollers should be trained to take soundings, probings near abutments and piers to determine the depth of scour in order to decide whether trains should be slowed down or stopped and piloted over the danger point, and the selection of men for this work should be from people who can usefully function in this manner.

(g) Stationary watchmen should be posted at the bridge during floods or heavy rainfall whether there is imminent danger to the bridge or not, until the flood water subsides and the water reaches the normal level.

(h) In case of doubt the patrolman should not allow trains to pass over bridges when the river is flowing at high velocity.

(i) Signboards should be put up at either end of the bridges at adequate distance from the bridge.

(j) The speed limit of the train should be restricted

to five to 10 miles per hour over bridges whenever there is rise in the level or increase in the flow of water during monsoon.

(k) Good glass should be fitted to the YP Engines to make it possible for the drivers to see through the glass at a distance especially during rains.

(l) Daily water reading should be taken at all important bridges during the monsoon and the Register should be available for perusal by the Superior Engineering staff, at any time. The staff should be properly trained for the purpose.

(m) The rules in Chapters X and XI of the Way & Works Manual should be amplified to include an appendix on river training and control of big and small rivers and indications to be looked for future trouble clearly

described and explained. The Railway Assistant Engineers and District Engineers should undergo a short course on this and also visit river model research stations to acquaint themselves with the behaviour of rivers and their response to training works.

(n) The high flood level mark should be prominently marked on every bridge and a danger level mark below high flood level should be fixed by the Engineering authority and marked in red. When the level is exceeded, the patrolman should be prepared to stop trains and pilot them if necessary.

(o) Passenger trains should carry portable telephone instruments so that they can communicate with the nearest Railway Station in the event of trains being halted between stations by patrolmen.

THE COMMISSION OF INQUIRY TO ASCERTAIN THE CAUSES OF THE ACCIDENT TO 565 DOWN PASSENGER TRAIN BETWEEN JADCHERLA AND MAHBUBNAGAR ON THE CENTRAL RAILWAY, ON THE NIGHT OF SEPTEMBER 1/2, 1956—REPORT

Delhi, Railway Board, 1957. 134p.

One-Member

Commission : Shri Sunderlal Trikamal Desai.
Assessors : Shri N.K. Mitra; Dr. K.L. Rao.

APPOINTMENT

The Commission of Inquiry to Ascertain the Causes of the Accident to 565 Down Passenger Train between Jadcherla and Mahbubnagar on the Central Railway, on the night of September 1/2, 1956 was constituted under the Ministry of Railways (Railway Board) vide their Notification, dated December 10, 1956, in pursuance of Section 3 of the Commission of Inquiry Act 1952 (LX of 1952).

TERMS OF REFERENCE

(i) To consider the Report of the Government Inspector of Railways on the said accident, and take such additional evidence as may be necessary; and

(ii) State its findings as to the causes of the said accident and the person or persons, if any, responsible therefor.

CONTENTS

Accident; Commission of Inquiry; Report of the Government Inspector of Railways; Inquiry at Hyderabad, Alignment; Pochani Nalla; Bridge No. 229; Breaches

at Bridge 229 on August 1, 1956; Restoration work done after breaches of August 1, 1956; Version on Shri Bheemadu, the night watchman on duty on September 1, 1956; Breaches of the embankment of bridge 229 on the night of September 1, 1956; Damage to bridge caused by the Crash; Ventway of Bridge 229; The Jangaon Accident of September 27, 1954; Directives issued by Railway Board in December 1954; Circulars issued by Chief Engineer; Patrolling on the Section and watch at Night; Evidence; Questions for determination; Case for the Railway; What was the Intensity of Rainfall; Was there any defect in the Restoration Work after breaches on August 1, 1956?; Bridge was structurally sound; Removal of speed restriction on August 21, 1956; Ventway was inadequate; Plea of act of God; Plea of inevitable accident; Grouping of bridges 229 and 233; Bheemadu not responsible for the accident; Argument for the Railway; Precautionary measures after Jangaon accident; Watch at tank affected bridges; Modification of instructions; Decision to group bridges: Practice followed by Deputy Chief Engineer; Some considerations overlooked; Principal cause of accident: inadequate ventway; Another cause of accident: inadequate watch; Railway responsible for the accident; Persons responsible for the accident; Opinion of Shri Mitra; Opinion of Dr. Rao; Suggested safeguards against similar accidents in future; Opinion

RECOMMENDATIONS

There was two to two-and-a-half inches of rainfall (according to the Railway about three inches) in the catchment area of the Pochari Nalla during one hour after 11 o'clock on the night of September 1. It appears that the level of the flood water at the bridge rose suddenly after Shri Bheemadu had left the bridge for the second time. It has not been possible to ascertain the exact level to which the flood water rose but I agree with the submission made on behalf of the Railway that water over-topped the railway line by about six inches to one foot and this caused serious breaches to the embankments on both the sides of the bridge.

There was considerable damage done to the Permanent-Way and the Bridge by the crashing of the engine and the two coaches when the accident occurred. Jadcherla-end abutment and the wing walls of the bridge were demolished up to about two feet from the bed level. Mahbubnagar-end was destroyed up to about five feet from the bed level. The structure of the bridge before the accident has been ascertained to be sound and the masonry in the undemolished portion of the abutments has on examination also been ascertained to be sound. As to how exactly the engine and the first two coaches went down must remain a matter of theorising; but so much is clear that the left-hand girder of the bridge was found lying across the track with its leading-end 28 feet, six inches ahead of the engine. The right-hand girder suffered more extensive damage and was badly buckled. It was found 56 feet away from the track on the downstream side. The approach banks were damaged to the extent of 25 feet in length and 15 ft. in depth on the Jadcherla side and 35 ft. in length and 16 ft. in depth on the Mahbubnagar side. The track over the damaged portion was completely smashed.

One factor which features prominently in this inquiry and gives rise to a crucial consideration is that the ventway of Bridge 229 near Mahbubnagar was designed to accommodate a discharge of only 2,400 cusecs at a velocity of about 10 feet per second, the height of the flood section corresponding to this flow being 12 feet including the afflux. Hydrological calculations based on carefully selected data were made by Dr. K.L. Rao, one of the learned Assessors, and he expressed the opinion that the estimated maximum discharge in the Pochani Nalla on the night of September 1, was in the order of 400 cusecs. This was far in excess of the capacity of the bridge and its approach banks to withstand the impact of the flood water. The fact that the approaches to the bridge had been restored on August 2, does not make any difference here because, as I shall have the occasion to point out later on, the breaches to the approaches

would have occurred even if they were in their old fully consolidated condition. It is also the case of the Railway that the impact of flood water on the night of September 1, was so great that it over-topped the railway line and even the 40-year old consolidated embankments would not have withstood that impact. It has been admitted before me by two Senior Officers of the Central Railway, the Chief Engineer and the Divisional Engineer, that the ventway of a 20-feet bridge like No. 229 would not be able to resist the flow of water resulting from two inches of rainfall in one hour in a catchment area like that of the Pochani Nalla.

Upon the whole, I have reached the conclusion that the principal cause of the accident was that the ventway of bridge 229 was inadequate to accommodate discharge of flood water resulting from two to two-and-a-half inches of rain which fell in the catchment area within one hour or a little over one hour on the night of September 1/2, 1956.

I have also reached the conclusion that another cause of the accident and one which has also required serious consideration was that the watch kept at bridge 229 on the night of September 1, was not adequate because it was not safe or prudent to group bridges 229 and 233 for being looked after by a single watchman. This grouping, of necessity, meant divided attention by the night watchman of two vulnerable spots at a distance of about two-thirds of a mile from each other. I have already examined this question of bracketing of bridges at some length and expressed the view that the watch kept at the bridge was inadequate and that the reason for this must be found in the arrangement of grouping bridges lying within a distance of about one mile and not in the absence of the watchman from bridge 229 in the emergent situation that suddenly arose. It was not safe or prudent to group bridges 229 and 233. That in my opinion was a serious mistake. The paramount and indispensable consideration of safety made it obligatory that in every case where a bridge or its approaches required attention and that too in a terrain of the nature to be found in this Section of the Railway where there was the possibility of flood water suddenly rising, close and continuous watch should have been insisted upon as the ultimate safeguard. That principle of safety was entrenched upon when vulnerable bridges which required close watch were grouped for being looked after by a single watchman. The inadequate ventway notwithstanding the accident could certainly have been avoided if the ultimate safeguard of close and continuous watch had been enforced.

It is for these reasons, which I have sketched, that the Central Railway must be said to be responsible for the accident. Omission by the engineering department of the Railway to maintain an adequate ventway for the bridge and omission to enforce full-time watch at the

bridge during monsoon before remedial measures could be taken, renders the Railway responsible on the ground of negligence. The rainfall proved to have occurred at the period of the accident was no doubt heavy, but it cannot be regarded as of unique character or an unpredictable convulsion of nature. It was such as ought to have been foreseen as possible. Having regard to the hilly terrain, the meteorological data available for Malibubnagar and its vicinity and the other relevant facts which I have already discussed, it is not possible for me to take the view that two inches to two-and-a-half inches of rain in one hour or a little more than an hour in the catchment area of the Nalla was an act of God. Nor is it possible for me to accede to the suggestion that this was a case of inevitable accident. An adequate waterway was of vital importance and till remedial measures were taken it was equally vital to see that close and continuous watch was maintained at the bridge. Grouping for the purposes of watch of two vulnerable bridges lying at a distance of about two-thirds of a mile was a serious error. There are mitigative factors but they are apart and do not disturb the finding of negligence, though in fairness to those responsible for the accident it must be added that those factors would have considerable bearing on other matters.

It remains to consider the question of the person or persons responsible for the accident. In view of the conclusion reached by me that there was an omission to take proper remedial measures in respect of bridge 229, the first thing to be examined is: Whose duty was it to see that the Railway maintained an adequate ventway for the bridges? Now primarily it was for the Chief Engineer and the Deputy Chief Engineer to apply their mind to the question of stability of all bridges on the old Nizam's State Railway after it was merged in the Central Railway. It was for them to direct investigation into the question and especially so after the experience at Jangaon.

Primarily, it was the duty of the Chief Engineer and the Deputy Chief Engineer to see that the ventway of bridge 229 maintained by the Railway was adequate. Investigation of the nature indicated by me should have been started immediately after the Jangaon accident. The fact remains that no attempt was made by them at any time during a period of nearly two years to secure even some *prima facie* data about the catchment area of the bridge and the possible intensity of rainfall. For all the reasons discussed by me in the preceding paragraphs, both the Chief Engineer and the Deputy Chief Engineer must be held to be responsible for the failure to provide an adequate ventway for the bridge.

Responsibility under this head must also fall on the Divisional Engineer. A copy of the Railway Board's letter of December 2, 1954 had been sent to him. Even if the Chief Engineer and the Deputy Chief Engineer

confined their instructions to investigation only of bridges which carried past history, he should have, if not before the washaway of August 1, in any event thereafter, seriously applied his mind to the capacity of the bridge and the possible intensity of rainfall.

I have no doubt that the Divisional Engineer did not apply his mind at any time till after the accident on September 1, to the question of the capacity of the bridge or its catchment area or the possible intensity of rainfall.

After giving most anxious consideration to this head of omission to provide an adequate ventway for the bridge and take any remedial measures in that behalf, I have, for reasons already discussed, reached the conclusion that the responsibility for the same must rest on the Chief Engineer, the Deputy Chief Engineer and the Divisional Engineer. A number of reasons given by them in their evidence before me in support of their conduct would give rise to valid considerations as mitigating circumstances but they are not such as can exonerate any of them from their responsibility.

I have reached the conclusion that no responsibility for grouping bridges 229 and 233 can rest on the Deputy Chief Engineer.

On a consideration of the whole position, I have reached the conclusion that the Divisional Engineer also was responsible for the omission to enforce adequate watch at bridge 229.

Suggested Safeguards Against Similar Accidents In Future

The hydrology of all streams affecting the Sector should be studied with all available data and requisite surveys should be carried out. The importance of hydrographic surveys does not require to be emphasised. Hydrographs where feasible are constructed for analysing surface run-off. The advantage of this is that it brings into the frame the element of time which must be a vital factor in the computation of storm flow. It furnishes what is described as the "time of concentration". It was observed in a Paper laid before the Indian Roads Congress by the Bridge Sub-Committee:

"The basic principle underlying the Hydrograph method is that a continuous rain of constant intensity produces hydrograph of a characteristic shape for any catchment area, and that this shape and the time of concentration are functions of the shape and size of the catchment area. The shape of the hydrograph is also affected if the duration of the storm either exceeds or is less than the time of concentration."

In case of extensive watersheds, detailed information requisite for hydrographs would often be difficult to obtain and correlate but in case of smaller areas the hydrograph furnishes the best available guidance. But systematic hydrographic surveys can only be a long term plan.

In a vast country like India with its varying weather and climatic conditions the possibility of having a uniform code of Rules for calculating maximum discharge of rivers and streams may readily be questioned. Various empirical formulae for estimating the discharge from a catchment have been presented from time to time. These run-off formulae from their very nature are of limited usefulness and the generally accepted principle is to devise rational formulae ground on basic concepts.

The immediate practical course to be adopted in these circumstances would be to direct investigations into the hydrology of all streams in the sector with such data as may be readily available. To start with, catchment areas over one square mile can fairly accurately be determined from topographical maps of the Survey of India. The Public Works Department of Andhra Pradesh, Hyderabad, maintains records of all tanks with irrigation of more than 10 acres. That would also be of use. I would suggest that all culverts should be checked for the maximum flood conditions. For catchments like that of Pochani Nalla the flood discharge should be computed on the basis of the maximum anticipated intensity of rainfall with allowance for a reason-

able percentage as run-off. The maximum intensity may be gauged from meteorological records. Results of analysis of severe storms that may have occurred during the past several decades would also have to be considered on the assumption that the storms centre over the catchments. In obtaining this data the Director (Hydrology and Statistics) of the Central Water and Power Commission, Poona, may be requested to furnish relevant data from which the expected intensity of rainfall and storm-depths for any catchment could be estimated.

Any action required for strengthening, widening or rebuilding including resisting of bridges should be taken as expeditiously as reasonably possible. Before action by way of remedial measures can be taken the ultimate safeguard of exclusive and close watch would be strictly enforced during the monsoon.

Grouping of vulnerable mileages is not a salutary principle. Where close and special watch is necessary, bracketting of bridges is most undesirable. In any event in hilly terrains where there is always a distinct possibility of flood-water rising suddenly, full-time watch by day and by night should be maintained during the monsoon.

COMMISSION OF INQUIRY—INQUIRY ON THE ADMINISTRATION OF DALMIA-JAIN COMPANIES, 1956—REPORT

Delhi, Manager of Publications, 1963. 815p.

Chairman : Shri Justice S.R. Tendolkar (resigned, replaced by Shri V.R. Sen).

Members : Shri N.R. Mody; Shri S.C. Chaudhuri.

Secretary : Shri S.N. Lahiri (resigned; replaced by Shri P.S. Nadkarni).

APPOINTMENT

The Commission of Inquiry—Inquiry on the Administration of Dalmia-Jain Companies was constituted under the Ministry of Commerce and Industry vide Notification S.R.O. No. 2993 of the Ministry of Finance (Department of Economic Affairs) dated December 11, 1956 under the Commission of Inquiry Act (No. LX) of 1952.

TERMS OF REFERENCE

To inquire into and report on the administration of nine Companies, the nature and extent of the control, direct and indirect, exercised over such companies and firms or any of them by Ramkrishna Dalmia, Jaidayal Dalmia, Shanti Prasad Jain, Shriyans Prasad Jain, their

relatives, employees and persons concerned with them and other matters mentioned in Clause 1 of the notification.

The names of the nine Companies are as follows:

1. Dalmia Jain Airways Ltd.
2. Dalmia Jain Aviation Ltd. (now known as Asia Udyog Ltd.).
3. Lahore Electric Supply Company Ltd. (now known as South Asia Industries Ltd.).
4. Shapurji Broacha Mills Ltd.
5. Madhowji Dharamji Manufacturing Company Ltd.
6. Allenberry & Co. Ltd.
7. Bharat Union Agencies Ltd.
8. Dalmia Cement and Paper Marketing Co. Ltd. (now known as Delhi Glass Works Ltd.).
9. Vastra Vyavasaya Ltd.

CONTENTS

Vol. I—General—Introductory; The Format of the Report: Procedure; Impeded Progress—and Reasons

Therefor; Legal Objcctions; The D.J. Group; Abuse of Control; Nature and Extent of the Personal Gains; Subscription Obtained from the Investing Public; Responsibility; Finale: Appendix; Vol. II—Dissolution—Introductory; Composition and Functioning of the Group; Effective Date of Dissolution; Documents: Ex.1216; Documents (continued) Ex.S.75; The Lauriya Farm; Account Books of J. Dalmia and Shanti Prasad Jain; Chronological Sequence of Entries; Were the Interpolations Innocent?; Implementation of Ex.1216; Oral Evidence: "Outside Witnesses"; Oral Evidence: Senior Executives and Employees; Broad Criticisms; Selling Agencies; Managing Agencies; Directorships; Senior Executives; Other Documents; Summary of Conclusions; The Dalmia Jain Group; Conclusions; Appendices; Volume III—Part 1—Allenberry and D.J. Airways—Pre-Joint Venture Period—Introductory; Allenberry: Acquisition and Control; D.J. Airways: Formation; D.J. Airways: Promotion and Floatation; D.J. Airways: Control through Directors; D.J. Airways: Control through Shareholdings; D.J. Airways: Initial Subscribers: 114 Fictitious Persons; D.J. Airways: Underwriting Commission; D.J. Airways: Managing Agency; Part 2—Joint Venture Period: Joint Venture Agreement, Ex.36; The R-3 A Plant; The 2323 Vehicles; Manipulations; Statutory Auditor, P.S. Sodhbans and the Ante-Dating of the Audited Accounts of D.J. Airways; Termination of the Joint Venture; Vol. IV—Part 1—Dalmia Jain Aviation—Post-Joint Venture: Allenberry Liquidation of D.J. Airways—D.J. Aviation; Part 2—Manipulations and Ante-Dating: Motor Vehicles Section—Under-statement of Sales for half year ended December 31, 1948; Inflation of Selling and Depot Expenses of Disposal Business for the Half Year ending December 31, 1948; Fraudulent Manipulation of Indirect Expenses for 1949, 1950 and 1951; Suppression of Profit on Disposal Business in the half year ending December 31, 1948, year ending December 31, 1949 and year ending December 31, 1950, Ante-Dating of the Accounts of Allenberry for the year ended December 31, 1948, Ante-Dating of the Accounts of Allenberry for the year ended December 31, 1951; Part 3—Manipulations and Ante-Dating: Drum and Pipeline Section—Transfer of Rs. 52 lakhs to D.C.P.M.; Under-statement of Sales of Steel Sheets; Part 4—Inter-Company Investment and Transfers—Introductory; D.J. Aviation; Investment of Rs. 75,25,000 in D.J. Aviation Shares; Investments in Shares; No Good Faith: Part 5—Liquidation—Introductory; Ante-Dating Ex.5; Events leading upto the Liquidation; Voluntary Liquidation of D.J. Airways; C.P. Lal: Voluntary Liquidator: Scheme of Amalgamation; Destruction of Account Books; Defence of C.P. Lal; Vol. V—Dalmia Cement and Paper Marketing Co. Ltd.—Introductory; Control; Borrowings, Loans and Advances; Borrowings from Banks (Bharat Bank; Punjab National Bank); Borrowings from Companies (L.E.S. Co.; D.J. Airways:

D.J. Aviation; S.S.B. and M.D.M.; Bharat Insurance Co.; Jaipur Traders; Dadri Marketing & Co. Ltd.); Loans and Advances (R. Dalmia; J. Dalmia; Rashtriya Financial Corporation; Bennett Coleman & Co. Ltd.; Ashoka Marketing Co. Ltd.; Ashoka Agencies Ltd.; Vyapari Ltd.; Dalmia Investment Co. Ltd.; Allenberry & Co. Ltd.; Rashtriya Investors Ltd.; Inter-Company Investments, Government Securities; Unauthorised Use and Retention of Sale Proceeds; Nahur Land: Payment of Rs. seven lakhs Compensation to Shriyans Prasad Jain; Personal Expenses Charged to Company's Revenue Accounts; Illegalities; Loss on Share Transactions; The 2323 Vehicles and Transfer of Rs. 52 lakhs; Liquidation, Transfer of Assets and Destruction of Books and Records; Responsibilities; Vol. VI—Part 1—Sir Shapurji Broacha Mills Ltd. and Madhowji Dharamji Manufacturing Co. Ltd.—Introductory; Acquisition of Control; Abuse of Control; Selling Agency Agreements; Managing Agency Agreements; Haines Road Property; Loans to D.C.P.M.; Bennett Coleman Shares; Liquidation, Transfer of Assets and Destruction of Books; Responsibility; Part 2—Bharat Union Agencies Ltd. and Vastra Vyavasaya Ltd.—Introductory; Acquisition of Control; Vol. VII—Part 1—Lahore Electric Supply Company Limited now known as South Asia Industries Limited—Introductory; Misuse of Funds; Loans to D.C.P.M.; Loans to Asia Udyog; Loans to Patiala Biscuits; Deceptive Presentation of the Loans in the Balance Sheets; Buying and Selling of Shares; Amalgamation of S.S.B. Mills and M.D.M.Co. (in Liquidation) under Section 280-C of the Indian Companies Act, 1913; Taking Over of Disputed Claim of Allenberry; Breaches of Trust; Part 2—Dalmia Dadri Cement Ltd.—Introductory; Promotion and Control; Fraud-Loan of Rs. 18 lakhs to Allenberry; Loans of Rs. 12 lakhs to Jaipur Udyog and Rs. 25 lakhs to Rajasthan Udyog; Rupees Six lakhs Compensation paid to Dalmia Jain (Jind State) Limited; Breach of Trust; Acquisition of Shares by R. Dalmia; Acquisition of Shares by Swadesh Nirman; Gains by R. Dalmia; Investment in Shares; Inter-Company Investments; Inter-Company Transfers; Inquiry and Recommendations.

RECOMMENDATIONS

Objects Clause Of The Memorandum Of Association

The Act should be suitably amended to provide that every Company shall clearly state its purposes and objects under two separate categories, viz.,

(a) The principal and ancillary objects which the company intends at the time of its incorporation to pursue; and

(b) All other objects which are separate from the principal and ancillary ones mentioned in item (a) above.

A provision should be made in the Act to the effect that a Company shall not engage itself in any activities coming within the scope of Clause (b) unless such activi-

ties are sanctioned by a special resolution of the Company in general meeting.

Underwriting Commission

The Commission shall not be paid to any persons on such shares or debentures as are actually subscribed for at the time of the filing of the Company's Prospectus or Statement in lieu of Prospectus.

A copy of the contract or agreement for the payment of the Commission shall be delivered to the Registrar simultaneously with the filing of the Prospectus or the Statement in lieu of Prospectus.

Issue And Allotment Of Shares In The Names Of Fictitious Or Non-existing Persons

A provision should be made in the Companies Act, whereby any person who, either makes an application to the company or otherwise induces the company to allot or transfer its shares in the names of fictitious or, non-existent persons, shall be punishable with imprisonment which may extend to five years.

The penal provision suggested above shall be inserted at a prominent place—

- (a) in every prospectus issued by a Company; and
- (b) in every form of application for shares that is issued to any person.

Holding Of Shares On "Blank Transfers" And Nominee Holdings

A new provision should be made in the Companies Act, 1956 to adapt Section 308 read with Section 307 so as to—

(a) Require beneficial owners of five per cent or more of the equity capital of a company or shares having the right to vote at general meetings, to notify to the company the extent of their holdings of all such shares; and

(b) Require such persons, so long as they remain beneficial owners of five per cent or more such shares, to notify to the company details of all transactions by them or on their behalf in such shares, within 15 days of such transactions coming to their knowledge.

The beneficial interests to be taken into account for the purposes of disclosure under the aforesaid new provisions should be confined to those shares which are held by a person or in trust for him, or of which he has any right to become the holder, whether on payment or not.

The provision should not require a director who has disclosed his holdings under Section 308 to make any further disclosure in relation to that holding.

Provision for fine or imprisonment should be made [on the same line as in Section 308(3) of the Companies Act, 1956] for wilful failure of a person to notify his beneficial interests in shares to the company as envisaged by the new provision suggested in item (i) above.

The identity of the shareholders notifying the beneficial interest, the extent of their individual holdings of, and the transactions in, the types of shares referred to in item (i) above and the description and amount of such shares should be recorded by the company in a new register within seven working days of notification to it.

The Company should be required to—

(a) keep open the new register for inspection by the same persons and on the same terms as its register of members; and

(b) to make available to the public copies of the new register on the same terms as copies of the register of members.

A return of all such disclosure of beneficial interests in holdings of and transactions in the shares, as recorded by the company, should be filed with the Registrar of Companies along with its Annual Return under Section 159 of the Companies Act, 1956.

Provision for penalty should also be made in respect of the Company's default in complying with any of the requirements of the provisions suggested above on the lines of Section 307(8).

The above requirements should not apply to holdings in a private company as defined in the Companies Act or should they affect the operation of Section 153.

Section 247 of the Companies Act, 1956, should be extended to empower the Central Government to appoint an Inspector to investigate the ownership of the shares of a company when there are circumstances suggesting to the Central Government that there may have been deliberate disregard of provisions for disclosure of ownership as suggested above.

Section 137 of the Income-tax Act, 1961, should be suitably amended to permit disclosure of such information as may be required by—

(a) the concerned officer or Department of the Central Government for the purpose of investigation into the ownership of shares of a Company under Sections 247 and 248 of the Companies' Act, 1956; or

(b) by a Court in connection with the prosecution of any person arising out of any proceeding instituted under Section 621 of the Companies Act, 1956, read with the above proposed provision for fine or imprisonment for deliberate non-compliance of disclosure of ownership as suggested above.

Restrictions should be imposed relating to the period of currency of the blank transfers by making suitable statutory provisions with a view to permit shares being held on blank transfers only for a limited period. In this connection, we make the following broad recommendation, namely—

(i) To prescribe a form for execution of the instrument of transfer to be delivered to the company for having the transfer of shares registered.

(ii) The transfer forms should be in a standardised

form as now obtaining in the case of listed securities in some of the Stock Exchanges in the country.

(iii) The application for registration of a transfer should be made to a company by either the transferor or the transferee within a period of six months from the date of issue of the transfer form as stamped on it in the case of listed securities and two months in the case of non-listed securities.

(iv) The aforesaid restrictions relating to the period of currency of the blank transfers, as mentioned above, should not apply in cases where the shares are held by a company within the ambit of Section 49 or where they are held in a fiduciary capacity or as security by a financial institution, provided that in the last case the shares should be in the name of the borrower with a blank transfer executed in favour of the institution as security for the advance.

(v) We strongly recommend reduction in the rate of stamp duty chargeable on the transfer of shares which in our opinion, would operate as an incentive against keeping the transfers blank. We feel that the loss in revenue on this account may be more than made up by the volume of transfers as well as by the possibility of reducing evasion in the matter of direct taxes.

Dummy Directors

The definition of "officer" contained in Section 2(30) should be expanded by the adding of a Sub clause (d) to include (as an officer) a person in accordance with those directions or instructions the directors of a Company or any of them are accustomed to act.

Loans To Companies Under The Same Management Or To Other Bodies Corporate

Section 370 should impose a limit on the amount of loans the lending company can give and for this purpose, we would suggest the limit of 20 per cent of the subscribed capital and free reserves of lending company in respect of loans to companies within the same group but with the sanction of a resolution of the shareholders.

The section should be further enlarged to include also loans made to companies not in the same group so that the aggregate of all the loans made by the lending company should not exceed 30 per cent of its paid-up capital and free reserves. Such loans also should be the subject of a resolution of the shareholders.

Loans in excess of the limits prescribed above should be sanctioned by a special resolution of the shareholders followed by the approval of the Central Government.

The same exceptions should apply as at present mentioned in Section 370(2).

Appointment And Termination Of Sole Selling Agents

The Companies' Act should be amended to the effect that—

(i) A Company shall not pay or be liable to pay its sole selling agents any amount by way of compensation for the loss of his office in the following cases:

(a) where the appointment of a sole selling agent ceases to be valid under Section 294(2A);

(b) where the sole selling agent resigns his office in view of the reconstruction of the company or of its amalgamation with any other body corporate or bodies corporate, and is appointed as sole selling agent of the reconstructed company or the body corporate resulting from the amalgamation;

(c) where the sole selling agent resigns his office, otherwise than on the reconstruction of the company or its amalgamation as aforesaid;

(d) where the sole selling agent has been guilty of fraud or breach of trust in relation to, or of gross negligence in the conduct of his duty as the sole selling agent; and

(e) where the sole selling agent has, whether directly or indirectly, himself initiated, or has taken part in bringing about, the termination of the sole selling agency.

(ii) The compensation which may be paid by a Company to the sole selling agent for loss of office shall not exceed the remuneration which he would have earned if he had been in office for the unexpired residue of his term, or for three years, whichever is shorter, actually earned by him during a period of three years immediately. This shall be calculated on the basis of the average remuneration preceding the date of cessation or termination of the office, or when he held the office for a lesser period, during such period.

Power And Obligation To Acquire Shares Of Dissenting Shareholders Under A Scheme Or Contract Approved By The Majority

Suitable provisions should be made, in the Companies' Act to the following effect for governing the procedure to be followed and the information to be disclosed in a take over offer and circular:

(a) The Central Government should have power to frame rules prescribing the information to be disclosed in every offer of a scheme or contract by a transferee company under Section 395 and in every circular containing such an offer, or recommendation to the members of the transferor company by its Directors to accept such an offer;

(b) Every offer of a scheme or contract under Section 395 offering cash for the shares to be acquired, should contain a statement, binding on the transferee company, saying that what steps it has taken to ensure that the necessary cash will be available;

(c) The circulars containing, or recommending acceptance of, the offer of a contract or scheme should be required, before their circulation to be sent for registration to the Registrar of Companies;

(d) The Registrar should be empowered (subject to appeal to the Court) to refuse to register any such circular which does not set out the information required to be given by the statutory rules suggested in (a) above or does so in a manner likely to create a false impression;

(e) The issue of such a circular, which has not been accepted for registration, should be made an offence;

(f) Circulars by directors or the members of the transferor company recommending rejection of the offer of a contract or scheme should not be required to be registered or subject to statutory rules suggested in (a) above.

Sub-section (3) of Section 395 should be suitably amended to provide that the transferor company shall within a month from the date of registration of the transferee company as holder of the shares of the dissenting shareholders intimate to them the fact of such registration and the receipt of the amount or other consideration representing the price payable to them by the transferee company, and shall forthwith proceed thereafter to pay the money to the dissenting shareholders.

Liquidation

Section 400 of the Companies' Act should be suitably amended to provide for issue of notice to, and consideration of the representations, if any, submitted by the Central Government, by the Court before it passes the final orders on an application made to it under Sections 391 to 394.

Recovery Of Taxes On Income From Companies In Liquidation

In addition to the existing provisions of Section 530 of the Companies' Act, this section should be modified to the extent of allowing preferential payment of tax in re-

spect of the last complete accounting year preceding the liquidation, notwithstanding that the assessment is actually made subsequent to the commencement of liquidation.

Provision should be made in the Income-tax Act to authorise the issue of a fresh demand notice on a transferee company which takes over all the liabilities of the transferor company including its income-tax liability, under a scheme of arrangement under Section 394 read with Section 391 or under Section 396 of the Companies' Act.

Section 220 of the Income-tax Act, 1961, which lays down the circumstances in which an assessee is 'deemed to be in default' should be modified to include a transferee company which takes over the income-tax liabilities of the transferor company in pursuance of any scheme of arrangement.

Destruction Of Books Of Account

Where a company has been amalgamated with another without liquidation, the provisions of Section 550 shall, notwithstanding there being no liquidation, apply to the books of the transferor company and it shall be made incumbent on the transferee company to retain the books in good order for the period for which it has been directed so to do.

Prohibition Of Allotment Until Receipt Of Minimum Subscription

The words "until the certificate to commence business obtained under Section 149" be deleted from Section 69(4); instead the following words be added, namely, "till the amount stated in the Prospectus as the 'minimum subscription' is raised".

1957

**COMMISSION ON CERTAIN ASPECTS OF COOPERATIVE
MOVEMENT IN INDIA, 1957—REPORT**
Delhi, Manager of Publications, 1957. 53p.

One-Man
Commission : Sir Malcolm Darling.

APPOINTMENT

The Certain Aspects of Cooperative Movement in India conducted by Sir Malcolm Darling was due to a request by the Government of India (Planning Commission) under the Technical Cooperation Scheme of the Colombo Plan in 1957.

TERMS OF REFERENCE

(i) To review recent developments in the field of co-operation with reference to programmes in the Second Five-Year Plan; and

(ii) To make recommendations for strengthening the organisation of Cooperative Departments in the States, the training programmes for cooperative personnel, and the organisation of the cooperative movement at and below the district level.

CONTENTS

Prefatory Note; Introduction; Part I—General Policy

IN INDIA 1957

in regard to the Agricultural Thrift and Credit Society; Part II—The Agricultural Thrift and Credit Society—Supervision, Audit and Investment of Reserve Funds; Part III—Some New Types of Societies; Part IV—Recruitment and Training; Part V—The Training System and the Teaching of Members of Societies; Part VI—The National Extension Service; Summary of Recommendations; Appendix; Itinerary of Tour.

RECOMMENDATIONS

Agricultural Credit Societies

The need for caution in making further credit available is especially necessary in States with less developed movements.

The pace for development set by the Second Five-Year Plan should be slowed down, and in the case of the weakest States 10 instead of five years should be allowed for achieving the targets.

An Officer of standing and experience should be attached to the Ministry of Food and Agriculture to act as Liaison Officer between the Ministry and the State Governments.

Large societies should be of three types and operate under certain conditions.

In due course they should be reviewed in relation to certain points specified in paragraph 34.

A special effort should be made to render the small societies more viable.

Societies with no Secretary of their own should be helped to get one of their members trained to act as Secretary.

Where this is impossible, Unions should be formed experimentally for the employment of peripatetic Secretaries.

The name 'Thrift and Credit Society' should be restored.

A systematic attempt should be made to increase deposits in Thrift and Credit Societies.

A special effort should be made to attract deposits from both young and old, including school children.

Ordinarily a representative of the State Bank of India should not be nominated by Government to the Board of a cooperative bank.

In no circumstances should nomination be governed or influenced by political considerations.

Wherever the general supervision of the Thrift and Credit Society is not the responsibility of the Central Cooperative Bank and the system works satisfactorily, no change should be made.

In Andhra and Madras societies classed A or B should be allowed to apply direct to a Central Bank for loans.

Thrift and Credit Societies with unlimited liability should be allowed to invest their reserve funds in their own business where this has been the practice in the past.

When they are lodged with a Central Bank, they should be kept in some liquid form, the total amount to be in addition to the fluid resource required to cover ordinary deposits; and there should be the same rule for the reserve funds of Central Banks deposited with an Apex Bank.

Audit should remain the responsibility of the Registrar, and in the Punjab and Uttar Pradesh, where this is no longer the case, his responsibility should be restored.

Societies should not be formed without proper preparation, and in each State, where this has not been done already, the Registrar should fix the number of visits by a member of his staff required to secure this.

Societies whose dealings would mainly be with non-members should not be registered under a Cooperative Societies Act.

More attention should be paid to cooperative farming on an individual as opposed to a collective basis.

The name 'Multi-purpose Society' should not be used of societies with only a single activity.

Where the supply and marketing side of the movement is sufficiently well organised, cooperative societies

should be used exclusively for the distribution of fertilisers.

Credit and crops should be closely linked.

Recruitment And Training

No one should be appointed Registrar without at least a year's training.

Every Registrar should have on his staff someone competent to succeed him and sufficiently trained and experienced to be able to do so.

Registrars should not be transferred under at least three years, and generally not for five years or more.

Ordinarily, no one from the Indian Administrative Service should be appointed Registrar under twelve years' service.

All appointed Joint or Deputy Registrars direct should attend a Senior Officers' course at Poona and get six months' training in addition.

Technicians employed in connection with any kind of industrial society should have three to four months' training, to include a short course in the theory, history and practice of Cooperation.

Advisers to the Registrar on Banking and Finance, if appointed within the department, should receive a year's training in banking, six months of which should be spent in a commercial bank or in the State Bank of India. If appointed from outside the department, they should get six months' training in cooperative banking and other cooperative financial activities.

A model training scheme for Assistant Registrars is recommended.

For Inspectors, attendance at an Intermediate Level Course should be supplemented by at least six months' field training.

The desirability of a rural background for all in constant contact with the villager should be given full effect to in recruitment.

More persons should be recruited than needed for employment to allow for weeding out the unfit during training.

Special staff will be needed to enable the large areas cooperatively undeveloped to keep pace with the Plan; the Registrars should advise their Governments accordingly.

A statistician should be added to the staff of the Registrar, Andhra Pradesh, Madras and Bombay.

The training courses should be revised to secure a better balance between the practical and the theoretical.

The syllabii of the courses should be revised and shortened.

There should not be more than four lectures a day in any training course.

The seminar system should be more freely used.

More time should be allowed in the courses for reading.

The libraries of the training centres should be better stocked.

There should not be more than one intermediate and one final examination.

Excessive 'home-work' should be discouraged.

Batches of students taken on tour should be limited to ten of large societies.

Societies much used for the practical purposes of training should be given some special staff for the necessary explanations and guidance.

Societies within easy reach of a training centre should be used for practical training.

No one should be allowed to take a course without first receiving the three to six months' field training.

After training no one should be given independent charge of a post without working for a certain period under the personal supervision of an officer of a superior grade

Men with over five years' service should not be trained with men of less than one year's service.

At both the intermediate and the higher level there should be two courses, one for new entrants, the other for those who require a course to prepare them for new responsibilities.

The course for Senior Officers directly appointed should include 'Rural Economics and Elements of Agriculture' as a compulsory subject; and the shorter course at the same level might well include 'Business Management' as an optional subject.

No one whose post involves attending a course and passing an examination should be confirmed in the post until he has passed it.

Short refresher course should be held regularly in all States.

Experiments should be made with the Study Session as used in France.

The correspondence course as a method of teaching should be borne in mind with a view to its introduction at a later stage.

There should be a short special course in cooperation for entrants into the Indian Administrative and Agricul-

tural Services, and also, if necessary, for key personnel in the Agricultural Credit Department of the Reserve Bank.

Teaching Of Members Of Societies

Regional training centres are needed for training those concerned with teaching members of cooperative societies; and the training should be given in the language of the region.

It might be better to train presidents of societies with other members of Committee rather than with Secretaries.

Special attention should be paid to the education of members of large societies.

The use of the drama in the teaching of members of societies should not be overlooked and might usefully be taken up by the National Extension Service, in collaboration with the Cooperative Departments and the All-India Cooperative Union.

The National Extension Service

No one should be appointed Cooperative Extension Officer without at least a year's field experience.

All Block Development Officers appointed direct should be trained as recommended in paragraph 118.

Coordination with the technical departments concerned can be best secured by the system described in paragraph 120.

If Block Development Officers are given administrative control over Cooperative Extension Officers they should be properly trained in the theory and practice of Cooperation, and Cooperative Extension Officers should be given at least two years' field experience before being posted to a Block.

Block Development Officers should not be liable to frequent transfers.

The posts of Cooperative and Panchayat Extension Officer should not be combined.

The National Extension Service through its cooperative staff should try to persuade groups of villagers of the same tribe or caste to reduce their expenditure on social ceremonies, where it seems out of proportion to their resources.

HEAVY ENGINEERING COMMITTEE, 1957—REPORT

New Delhi, Ministry of Heavy Industries, 1957. 26p. (Memographed)

Chairman : Sir Jehangir Ghandy.

Members : Shri S. Moolgaokar; Shri S.K. Nanavati; Shri P. Mueller; Shri F.C. Bhadwar; Shri P. Bhattacharji; Dr. M.D. Parekh; Shri P.R. Ramakrishna.

IN INDIA 1957

APPOINTMENT

The Heavy Engineering Committee was constituted under the Ministry of Heavy Industries in 1957 to examine the two reports submitted by the Soviet Team of Heavy Machinery and the United Kingdom Heavy Engi-

neering Mission and to advise Government on the most suitable plan on the establishment of Heavy Engineering Industry in India.

TERMS OF REFERENCE

(i) To examine the two reports (submitted by the Soviet Team and the U.K. Mission in regard to the establishment of Heavy Engineering Industry in India); and

(ii) To advise Government on the most suitable plan on the establishment of Heavy Engineering Industry in India.

CONTENTS

Introductory; Consideration of Technical data regarding Approximate Capital Cost, Annual Output and Number of Employees, from the Reports Submitted by the Soviet Team of Heavy Machinery Experts and the U.K. Heavy Engineering Mission; Deliberations of the Heavy Engineering Committee (assisted by Government Officers) and Recommendations; Procedure for the Implementation of the Heavy Engineering Industry Projects; Acknowledgement; Enclosures I and II; Appendices A and B.

RECOMMENDATIONS

After considering the British and the Russian reports, the Heavy Engineering Committee was of the unanimous opinion that, for reasons stated below, the proposals contained in the report of the U.K. Heavy Engineering Mission were preferable to those submitted by the Soviet Team of Heavy Machinery Experts. These reasons are:

(i) Whilst the Russian report recommends establishment of an integrated Heavy Machine Building Plant as a homogeneous unit, the British report recommends the establishment of different shops on unit basis. The U.K. report has, however, correctly pointed out that the Heavy Machine Shop should be located in close proximity to the Forge/Foundry Project. With the exception of the Medium Heavy Machine Tool Plant, which could be located near the same site, the other units, namely, the Plate and Vessel Works, the Heavy Structural Works and the Mining Machinery Factory could be located at independent sites.

(ii) The recommendations made by the U.K. Heavy Engineering Mission will permit a greater scope for ultimate development of the Heavy Engineering Industry than units of a composite plant sited at one location.

(iii) The British report covers a wider scope for, in addition to equipment for the iron and steel works, they have envisaged production for other industries, such as chemical and fertilizer industries in a plate and vessel works. The British report also recommends the production of medium/heavy machine tools and of mining

machinery in separate factories. These aspects have not been covered by the Russian Report, who, however, submitted a later report on mining machinery production.

(iv) The establishment of the Heavy Engineering Industry on unit basis will enable return on investment to be earned earlier, as it would be possible to obtain production from separate units earlier than in the case of an integrated plant at one site.

(v) Dispersal of some of the units is advisable for strategic considerations and also for reasons of transport facilities.

(vi) Concentration of Heavy Engineering Industry at one site as recommended in the Russian Report may make it difficult to obtain highly skilled layout which is essential for this project. Dispersal of units, on the other hand, as recommended in the U.K. report, will enable generations of skilled labour to be developed more effectively.

2. In regard to the project for Heavy Machine Shop, the Soviet Team in its Aide Memoir dated February 20, 1957, has indicated an approximate range of output of machinery and equipment as shown below:-

S. No.	Name of Machinery and Equipment	Weight (Tons)
1.	Coke Ovens Bye-Product equipment	5,000
2.	Blast Furnace equipment	4,000
3.	Steel Making equipment	5,000
4.	Crushing and Grinding equipment	2,000
5.	Cranes	4,000
6.	Assemblies of Rolling Mill equipment and spare parts	2,000
		22,000

3. On the other hand, the U.K. Heavy Engineering Mission report has not indicated the tonnages or the expected range of output of machinery and equipment. Further, as indicated on page 55 of their report, if two Heavy Machine Shops are to be located the investment involved is Rs. six crores and seventy lakhs. The Soviet Team of Heavy Machinery Experts have indicated to Government that a Heavy Machine Building Plant in the range indicated above would cost approximately Rs. seven crores. Therefore, as the capital investment indicated is approximately the same and, as we were given to understand, the Russians would offer satisfactory credit terms, the Committee is of the opinion that the Russian project for Heavy Machine Shop may be accepted.

4. In regards to the Mining Machinery Works, the U.K. report has provided for capital investment of Rs. two crores and ninety-six lakhs. This estimate is exclusive of Forge/Foundry Shop as they had assumed that the requirements of forgings and castings for this unit would

be supplied from the Forge/Foundry Project to be established under the auspices of the N.I.D.C. However, this Committee considers that, within the financial limit of Rs. 20 crores provided for the Forge/Foundry Project, it will not be possible to provide for additional capacity to supply components to the Mining Machinery Works, in addition to the requirements of the Heavy Machine Shop and the Medium/Heavy Machine Tool Works. Therefore, a small Forge and Grey Iron Foundry will have to be integrated with the Mining Machinery Works to make it a composite unit. With this in view, the capital investment has been increased to approximately Rs. four and a half crores.

5. The Heavy Engineering Committee has been advised that the Soviet Team of Heavy Machinery Experts has recently submitted a more elaborate scheme for the manufacture of mining machinery in a separate works, estimated to produce approximately 30,000 tons of machinery a year, involving a capital investment of approximately Rs. 13 crores. It is, therefore, suggested that the Soviet Team of Heavy Machinery Experts as well as the U.K. Heavy Engineering Mission should be asked by Government to re-examine and submit a revised project for the production of approximately eight to 10 thousand tons of mining machinery requiring a capital investment not exceeding Rs. four-and-a-half crores including its Forge/Foundry Shop. The requirements of mining machinery and other equipment to the tune of eight to 10 thousand tons a year should be worked out in detail by Government in consultation with the Coal Mining Industry, before requesting the Soviet Team and the U.K. Mission to re-examine this project.

6. The Committee recommends that the following shops and the number of units be accepted in the establishment of Heavy Engineering Industry in India, as a beginning.

Works	No. of Units	Approximate Capital investment (Rs. in crores)
Forge/Foundry Shop	1	20.00
Heavy Machine Shop	1	7.00
Heavy Structural Works	1	1.09
Heavy Plate & Vessel Works	1	5.16
Medium/Heavy Machine Tool Works	1	4.70
Mining Machinery Works	1	4.50
Total		42.45
At 15% for contingency		6.37
Total including contingency		48.82
		say 49 crores

7. The Committee considers it essential to make a minimum provision of 15% on the estimated investment cost for contingencies. With prices of machinery and equipment on the increase, it is very likely that the actual expenditure to be incurred during the next four years of the Second Five-Year Plan will be higher than the estimates. The above estimates have been taken from the U.K. Mission report, except for the Heavy Machine Shop which has been recommended by the Committee on the pattern offered by the Russians at an estimated cost of approximately Rs. seven crores.

8. The Committee wishes to point out that the capital investment has been indicated on broad outlines. When detail project reports are received, it is very likely that the capital investment may exceed the estimate indicated.

9. It will be observed that the total estimated investment including 15% for contingencies is approximately Rs. 49 crores and therefore, the financial limit of Rs. 40 crores as indicated by Government will not be sufficient.

10. The Committee recommends that if it becomes essential to eliminate some of the projects, then the following should be the order of priority.

(i) The first unit to be set up should be a composite unit comprising of Forge/Foundry Shop and a Heavy Machine Shop.

(ii) One unit of Plate and Vessel Works.

(iii) One unit of Heavy Structural Works.

(iv) One unit for the production of Mining Machinery and Equipment.

(v) One unit for the production of Medium/Heavy Machine Tools (to which should be attached the heavy grey iron section of the N.I.D.C. Forge/Foundry project).

11. One member of the Committee, Mr. P. Bhattacharji, suggested a combination of units to be established for the Heavy Engineering Industry, different to what has been indicated in paragraph six. It will be observed, according to his proposals, that the estimate for capital investment, including 15 per cent for contingencies, works out to approximately Rs. 51 crores.

12. It was the considered opinion of the other members of the Heavy Engineering Committee as well as of the Government officers who were present that early establishment of a Machine Tool Works is essential for providing a broad enough base for the development of Heavy Engineering Industry. In addition, the Committee also felt that Mr. Bhattacharji's proposals would result in a larger number of men to be employed which will further increase the total capital investment to provide for housing and other municipal services for the additional number.

Forge/Foundry Project—N.I.D.C.

13. As stated previously, Government have appointed

a Special Committee to examine the different proposals received for the establishment of a separate Forge/Foundry project under the auspices of the N.I.D.C. At the meeting on March 5, 1957, the Heavy Engineering Committee have indicated the requirements of forgings and castings for the Heavy Machine Shop and for the Medium/Heavy Machine Tool Works.

14. The following is a summary of the requirements:

(a) Steel Castings

Finish-machined requirement	13,500 tons per annum
-----------------------------	-----------------------

Fettled and cleaned casting required for above	18,000 " "
--	------------

Liquid metal required for above	26,000 " "
---------------------------------	------------

(b) Forging

Finish-machined forgings required	10,000 " "
-----------------------------------	------------

Ingots required for above	20,000 " "
---------------------------	------------

Liquid metal required for above	24,000 " "
---------------------------------	------------

(c) Total liquid metal capacity required for steel

50,000 " "

(d) Grey Iron Casting

Finish-machined casting required	6,000 " "
----------------------------------	-----------

Liquid metal capacity required for above	10,000 " "
--	------------

The above tonnages are exclusive of the requirements of rolls for the steel plants.

15. The Heavy Engineering Committee also recommends, finance permitting, that a section for manufacture

of non-ferrous components be included in the Forge/Foundry Project with a capacity of approximately 1500 to 2000 tons per annum of finished non-ferrous components.

16. The total requirement of Heavy Machine Shop has been broadly divided into 40 per cent forgings and 60 per cent steel castings. Likewise, for the Medium/Heavy Machine Tool Works, it has been estimated that the requirement of forgings will be 33 per cent and that of grey iron castings will be 67 per cent.

17. This is suggested as the Heavy Machine Shop as offered by the Russians and the Medium/Heavy Machine Tool Works as offered by U.K. Mission, have been recommended by the Committee for acceptance. If any adjustments are necessary in the quantities of castings and forgings, then the revised figures should be indicated by Government to the Forge/Foundry Special Committee for their consideration.

18. To avoid any duplication of machine tools in the Forge/Foundry Project and in the Heavy Machine Building and Medium/Heavy Machine Tool Works, the details of machine tools should be carefully checked by the Special Committee, preferably in consultation with the Soviet Team and U.K. Mission.

19. In the event of the Medium/Heavy Machine Tool Works being established at a site other than for Forge/Foundry Project and Heavy Machine Shop, the Committee recommends that the Grey Iron Foundry should be isolated from the Forge/Foundry Project and should be integrated with the Machine Tool Works, as the requirements of grey iron castings are mainly for this shop.

HOTEL STANDARDS AND RATE STRUCTURE COMMITTEE, 1957—REPORT

New Delhi, Ministry of Transport and Communications (Tourist Department), 1958. 107p.

Chairman : Diwan Chaman Lall.

Members : Shri R.R. Morarka; Shri M.S. Oberoi; Shri K. Heuer; Shri C. Green; Shri Ram Nath Kapur; Shri E.F. Gerald Jr.; Shri N.J. Katgara; Shri N.P. Dube; Shri Nettur P. Damodaran (resigned; replaced by Shri K.T. Achuthan).

Secretary : Shri G.R. Kadapa.

APPOINTMENT

The Hotel Standards and Rate Structure Committee

was constituted under the Ministry of Transport and Communications (Tourist Department) in 1957.

TERMS OF REFERENCE

(i) To frame criteria for the classification of hotels keeping in view the criteria laid down by existing International Organisations dealing with the hotel industry.

(ii) To recommend the number and type of classifications that should be applicable e.g. whether to introduce the Star System as is prevalent in some countries or any other suitable system of classification.

(iii) Taking into account the price level obtaining in India, the cost of hotel-keeping and other relevant factors, to recommend a rational rate structure for each category of hotels and other establishments.

(iv) For the purpose of promoting tourist traffic, to consider any other aspect of the hotel industry including the desirability or otherwise of legislation and/or of assistance.

CONTENTS

Introduction; The New Era of Air Travel and Its Impact on the Hotel Trade; Classification and Criteria; Rate Structure; Assistance to the Hotel Industry; Legislation; Service Charge and Tipping; Conciliation; Provision of Common Fund; Prohibition; Training of Hotel Personnel; Public Sector and Private Sector in the Hotel Industry; Foreign Interests; Rest Houses, Dak Bungalows, Circuit Houses and the Like; Indian Style Hotels; Hygiene, Cleanliness and Food; Tourist Publicity; Kashmir: Places of Tourist Interest and Their Development; Acknowledgments; Appendices I to VII.

RECOMMENDATIONS

It is axiomatic that the average traveller in this new age will not require pomp but essential comfort, convenience and good food. The hotel industry has to build a reputation for itself just as any other good business. Therefore, the benefit that would accrue through this increased traffic will necessarily be taken advantage of in a large measure by traditional hoteliers whose reputation is good.

We are convinced that the time has come for the rapid expansion of the hotel industry. We have suggested that this should be done under a proper and planned scheme of development. We had our First Five-Year Plan. The hotel industry was not in that Plan. We are proceeding with our Second Five-Year Plan. Again the hotel industry does not form any part in this Plan. We would urge the Planning Commission and all the interests involved, including the Ministry of Transport that no time should be lost for the purpose of planning the development of the hotel industry on a rapid but rational and scientific basis keeping in view the requirements of the country in this behalf for the next fifteen years or so.

Classification And Criteria

From a study of the prevalent system of classification, the Committee came to the conclusion that the existing modes of classification are divergent and that the number of categories varies from three to six excluding subdivisions and that the classifications are symbolised sometimes by stars, by Roman or Arabic figures or by alphabetical symbols. Considering that the star system is the most popular and the most easily understood

method, the Committee feels that it would be worth trying in this country. The Committee, therefore, recommends that this system should be adopted in India and all hotels in any particular class should be listed in an alphabetical order which, indeed, is the prevailing rule in most countries where classification exists. In the case of seasonal hotels it would be necessary to declare the months during the year that such hotel establishments remain open.

In the matter of Dak Bungalows, Rest Houses and other residential establishments used by tourists, the Committee recommends that these should be classified as A, B and C. The Committee further considers that such establishments which provide good service and food, modern sanitation, a high standard of cleanliness, decent and comfortable furniture inclusive of good bed and bath, linen, proper modern kitchen arrangements and electricity may be eligible for 'A' category and those with modern sanitation, good service and food, a high standard of cleanliness, modern sanitation, decent and comfortable furniture but no proper modern kitchen arrangements should be eligible for 'B' category and the rest should be classified as 'C' category.

The Committee also recommends that no establishment which does not primarily offer residential accommodation and is not so used should be permitted to use the word 'hotel'.

Due to the urgent necessity for the classification of hotel establishments in India, we recommend that this task should be undertaken by a small but effective Standing Hotel Committee under the Tourist Department on which there should be adequate representation of the hoteliers. This Committee should, in our opinion, consist of four members; viz. two representing the hotel industry, one representing the consumers—preferably a Member of Parliament and the fourth, who will be the Chairman, representing the Tourist Department of the Government of India. The Committee should have the power to co-opt on a regional basis a representative each of the hotel industry and the Tourist Department in that particular region. We are further of the view that the Committee should not be an unwieldy one but a business-like body. It should meet as and when necessary and should be capable of taking prompt decisions particularly in the matter of re-grading hotels which matter can obviously brook no delay.

The Committee gave a great deal of thought to the method of classifying hotels in India and has come to the conclusion that a scientific basis should be adopted for the purposes of classifying hotel establishments, in order that there should be no doubt whatsoever that justice is being done in the matter of classification. The Committee has, therefore, worked out a suitable system of assigning marks in respect of classification—one class of marks would be 'Essential' and the other 'Desirable'. It

will be necessary for an establishment which is to be categorised to qualify for that category by obtaining a minimum of 50 per cent marks in each 'Essential' item and 65 per cent on the aggregate. And as far as the 'Desirable' items are concerned, a totality of 70 per cent of the aggregate marks is to be considered as the minimum requirement. As already stated the Committee also is aware of the necessity of keeping in view the climatic conditions prevailing in India and, therefore, suggests that hotel establishments should be distinguished namely those maintained in the hills, those maintained on the plains and those at the sea-side resorts. Therefore, the criteria for such types of hotels will have to be slightly different while at the same time not deviating in material respects from the expected standards. The Committee, therefore considers that the following broad criteria should be applicable to all hotels catering for tourist traffic:—

(***** Five Star Or De Luxe Category

	Marks	Essen- tial	Desir- able	Marks
1. An artistically designed and substantially constructed building, in a good locality. (For new hotels the building should have been constructed on modern hotel lines.)	10			
2. Public rooms such as lounge, dining rooms, bars, banquet halls etc. and residential rooms should be air-conditioned wherever necessary except in hill stations.	15			
3. A Swimming Pool and/or Tennis Courts.	10			
4. Billiard Rooms, Radio in each room.	5			
5. There should be adequate public room facilities such as a Lounge, Banqueting Halls, Writing Room, Dining Rooms for private parties, Conference Rooms for meetings, Bars, Restaurants and Grill Rooms, safe deposits, foreign exchange, postal and shopping facilities as well as Airlines and Travel Agencies offices, a Taxi Stand, adequate facilities for garages or parking space. 10% of the total floor area should be earmarked for public rooms.	30			
6. Complete and adequate laundry facilities.	5			
7. Elegant furnishing and appointments in the rooms.	10			
8. 24 Hours' Service.	5			
9. All rooms must have attached bath rooms which should have long baths				
				and showers, toilets and wash basins. The sanitary fittings should be of the highest quality.
10. Provision of running hot and cold water all the time.				15
11. Provision of proper lighting including bed-lights and bath room lights.				5
12. Provision of electric points for plugging in electric razors in the rooms.				5
13. Provision of clean and adequate bed linen, blankets and bath room linen of the highest quality.				10
14. Provision of toilet soap and paper for each guest.				2
15. Provision of 'Left Luggage Rooms' and 'Check Rooms'.				5
16. Each room must have a telephone for service. In Metropolitan cities it should have an external telephone service as well.				10
17. Provision of call bell system in each room.				5
18. Provision of lifts wherever necessary for guests commensurate with the bed capacity and number of floors in the hotel.				10
19. Provision of orchestras, floor shows and ball room facilities in metropolitan cities only.				10
20. Provision of highest quality of indigenous crockery, cutlery, glassware, silverware and tableware. (Imported crockery etc. not barred.)				10
21. Provision of a modern kitchen, pantries and cold storage.				15
22. Provision of modern equipment in kitchen such as Dishwashing Machines, etc.				10
23. Provision of Indian and Continental cuisine, vegetarian and/or non-vegetarian.				10
24. The highest standard of cuisine, catering and service.				25
25. Smart, efficient, experienced staff in adequate number from the General Manager down to the bell-boy.				10
26. Suitable livery of a very high standard for the relevant staff.				10
27. Senior staff and Service staff should know English and possibly one more European or Asian language.				10

Marks Essen- Desir- tial able	Marks Essen- Desir- tial able
28. Provision of public stenographic service.	15. Provision of toilet soap for each guest.
29. It is necessary and highly essential that hotel establishments in this category should be guided by business ethics of the highest order and should have an atmosphere of elegance and luxury and provide service, food and appointments appropriate to a luxury hotel.	16. Provision of a 'Left Luggage Room'. 17. Each room must have a telephone service. In metropolitan cities it should have an external telephone service as well.
35 (****) Four Star	18. Provision of call-bell system in each room. 19. Provision of lifts wherever necessary for guests, commensurate with the bed capacity and number of floors in the hotel
1. A well constructed building. (For new hotels the buildings should have been constructed on modern hotel lines.)	20. Provision of Orchestra and Ball room facilities (in metropolitan cities only).
10 2. Dining Room and 50% of the bed rooms should be airconditioned wherever necessary.	21. Provision of high quality of indigenous crockery, cutlery, glassware, silverware and tableware. (Imported crockery etc. not barred.)
3. Swimming Pool and/or Tennis Court.	22. Provision of a modern kitchen, pantries and cold storage.
4. Indoor recreational facilities such as radios in each room and public Billiard room.	23. Provision of modern equipment in kitchen such as dish washing machine etc.
5. Adequate well furnished public room facilities such as lounge, licensed bars (in non-prohibition areas), ball room or banquet room (in major cities only) and dining room. At least 7½% of the total floor area of the hotel should be earmarked for public rooms.	24. Provision of Indian and Continental cuisine, vegetarian and/or non-vegetarian.
6. Provision of facilities such as bookstalls, travel agency, airline offices, banking and postal facilities, garage or parking space.	25. A high standard of cuisine, catering and service.
7. Laundry facilities.	26. Smart, efficient and experienced staff in adequate number from the Manager down to the bell-boy.
8. Well furnished and well appointed bed rooms and suites.	27. Suitable livery of a high standard for the relevant staff.
9. 24 Hours' Service.	28. Senior staff and service staff should know English and possibly one more foreign language.
10. All rooms must have attached bathrooms which should have long bath and/or showers, toilets and wash basin. The sanitary fittings should be of high quality.	29. Business ethics of the highest order. The hotel should have an atmosphere of elegance and comfort and provide service, food and appointments appropriate to this category of hotels.
11. Provision of running hot and cold water all the time.	(***) Three Star
12. Provision of proper lighting including bed lights and bathroom lights.	1. A well constructed building. (For new hotels the buildings should have been constructed on modern lines.)
13. Provision of electric points for plugging in electric razors in the rooms.	2. 25% of the bedrooms should be air-conditioned wherever necessary except in hill stations.
14. Provision of clean and adequate bed linen, blankets and bathroom linen of a high quality.	3. Indoor recreational facilities such as

	Marks	Essen- tial	Desir- able	Marks	Essen- tial	Desir- able
a radio in the lounge, card tables, etc.				23. Smart efficient and experienced staff.	10	10
4. Provision of adequate and well furnished dining room and lounge. At least 5% of the total floor area of the hotel should be earmarked for public rooms.	5			(**) Two Star		
5. Provision of facilities such as book-stall and parking space for cars.	30			1. The building should be in a good locality and should be suitable for a hotel.	10	
6. Laundry facilities.	10			2. All the rooms should have fans wherever necessary and good ventilation.	15	
7. Reasonably well furnished and well appointed bedrooms.	5			3. Provision of adequate and reasonably furnished dining room and lounge.	15	
8. Service till 11 P.M.	10			4. Provision of a separate Reception-cum-Enquiry office within the proximity of the main entrance of the building.	10	
9. All rooms must have attached bath rooms which should have long baths and/or showers, toilets and wash basins. The sanitary fittings should be modern and of good quality.	5			5. Provision of laundry facilities.	5	
10. Provision of running cold water all the time and running hot water mornings and evenings.	15			6. Reasonably well furnished and well appointed bed rooms.	10	
11. Provision of proper lighting including bed lights and bedroom lights.	5			7. Service till 11 p.m.	5	
12. Provision of clean and adequate bed linen, blankets and bath room linen of good quality.	5			8. Atleast 50% of the rooms must have attached bath-rooms (public bath rooms to be in the ratio of one for every four of the remaining bed rooms) which should have modern sanitation.	20	
13. Provision of toilet soap for each guest.	10			9. Provision of running cold water all the time and provision of running hot water mornings and evenings.	10	
14. Provision of 'Left Luggage' facilities.	5			10. Provision of proper lighting including table lamps.	5	
15. Call bell and/or internal telephone system in each room and in metropolitan cities external telephone on each floor.	5			11. Provision of adequate and clean blankets and linen including bath room linen.	10	
16. Provision of Lift wherever necessary.	10			12. Provision of toilet soap on request.	5	
17. Provision of music and dance-floor facilities (in metropolitan cities only).	10			13. Provision of one or more public telephones on the premises.	5	
18. Provision of good quality of indigenous crockery, cutlery, glassware, silverware and tableware. (Imported crockery etc. not barred.)	10			14. Provision of good quality indigenous crockery, cutlery and glassware. (Imported crockery etc. not barred.)	10	
19. Provision of a modern kitchen, pantries and cold storage.	15			15. Provision of a clean, hygienic and well maintained kitchen with smoke exhausts and proper stores and running hot and cold water.	20	
20. Provision of modern equipment in the kitchen.	10			16. Provision of reasonably good standard of cuisine. Indian as well as continental food (vegetarian and/or non-vegetarian) and good service.	25	
21. Provision of Indian and Continental cuisine, vegetarian and/or non-vegetarian.	10			17. Efficient and experienced staff.	10	
22. A high standard of cuisine, catering and service.	25			18. Suitable and clean livery for the relevant staff.	10	

Marks	Rate Structure
Esscn- Desir- tial ablc	
10	The Committee recommends: The adoption of modified Hubbart Formula in the matter of fixation of the rate structure applicable to hotel establishments in this country.
25	The withdrawal of rate control as at present exercised in Bombay or wherever it exists.
25	The entrusting of the work of looking into the application of the Rate Structure to the Standing Hotel Committee.
	Assistance To The Hotel Industry
10	In keeping with the declared policy of the Government, the Hotel Industry should, by and large, be left to private enterprise, but where the private sector is unable or unwilling to fill the gap, Government should step in.
10	The Hotel Industry being of national importance, the Government of India and particularly the Planning Commission, should give this industry its due by formally recognising it as an industry.
10	For the rapid growth of the Hotel Industry, which is essential for quick development of tourist traffic, adequate financial assistance in the shape of loans, grants, subsidies etc., should be made available to the Hotel Industry.
10	A fund of Rs. 10 crores should be created for the purpose of advancing loans at low interest and easy terms of repayment to deserving hoteliers, since financial assistance is of the utmost importance if more hotels are to be constructed and maintained in this country.
15	Other sources of loans, such as the Finance Corporation, Insurance Companies, Banks (Indian and International) should be persuaded to offer loans to the Hotel Industry on suitable terms.
10	The feasibility of giving exemptions from certain types of taxes to new hotels for a certain period of years should be considered.
5	Lowering of custom duties on certain imported stores and equipment and refund of sales tax in respect of dollar earnings of hotels should be considered with a view to assisting the Hotel Industry.
10	The refund system on income tax on the basis of percentage of profits earned in foreign exchange should be made applicable to the Hotel Industry.
20	Depreciation on furniture should be increased from nine per cent to 15 per cent, and the highest rate of depreciation should be allowed on electric motors, air conditioning plants etc., used in hotels.
25	All anomalies in the matter of sales tax should be eliminated.
10	The Hotel Industry should be given direct Import Licences in respect of essential equipment and provisions to be imported from abroad for maintaining proper standards of hotel keeping.
15	With a view to attracting more and more tourists
25	

during the summer season and to spread out tourist arrivals throughout the year and with a view to persuading overseas tourists to lengthen their stay in India, hotels should be encouraged to aircondition both private rooms as well as public rooms and all assistance and facilities should be afforded to them to import the necessary equipment from abroad.

Those willing to start Rest Houses and Dak Bungalows where the existing facilities are inadequate should be assisted by the Government.

Immediate steps should be taken to augment the existing hotel facilities or for providing new ones at all important tourist centres. In Calcutta, particularly where the hotel accommodation is very short, the Committee recommends the erection of a first rate hotel there, and a functional but first rate (with a minimum bed capacity of 200) at the Dum Dum airport and a couple of moderately priced first rate and modern hotels in the city. Hotel accommodation should also be increased on an urgent basis in places like Bombay, Agra, Cochin and Madras, and functional hotels of the type of Tourist Hotels in Italy, should be provided at important tourist centres where at present there are no proper and adequate facilities.

Legislation

Built-In-Conciliation Machinery

A conciliation board should be set up in case of disputes regarding wages and working conditions or of any other kind between the employees and the hotel management. We recommend as an essential feature a system of built-in Boards of Conciliation at the Unit level, the City level and the Hotel Federation level—the Board to consist of equal numbers of representatives of management and workers with an independent Chairman at the Unit level, the City level and the Hotel Federation level. All disputes and grievances will thus be dealt with from day-to-day and any unresolved matter will go to the next level and finally, if necessary, to the Hotel Federation level whose verdict must be final and binding on all concerned. This must take the place of the provisions of the Industrial Disputes Act as applicable to hotel establishments.

Regulation of the relationship between the hotelier and the employees, namely, stipulation of hoteliers' obligations towards the workers' emoluments, food, accommodation, clothing and medical aid, the total number of working hours to be put in during a specified spread-over time, overtime wages, recovery against loss or damage to hotel property, service charge, payment of gratuities, bonus, minimum wages, pensions, provident funds etc. Provision for warning, punishment or dismissal of hotel employees on being found slack, negligent, indisciplined, disobedient or found harassing guests for tips or other similar objectionable acts. In fact it is necessary to draw

up a code of conduct by agreement between employer and employee.

Workers' obligation towards the hoteliers, namely, good behaviour, efficient service, cleanliness and regular attendance, compliance with the management's special instructions in special circumstances.

Protection for the hotelier from unscrupulous lodgers i.e. those who do not pay their bills in time or who overstay their booked time or those who make a nuisance of themselves vis-a-vis the hotel management and other guests staying in the hotel.

Provision for references to the local Tourist Advisory Committees in case of any complaints by lodgers who feel that they have been subjected to any malpractice such as overcharging and illegal ejection from the hotel or short supply of materials and amenities and all such matters.

Relationship between the hotel industry and the Government such as:

(i) Protection of the hotelier against undue or excessive claims by lodgers for damage to person or property, theft, food poisoning, missing of train and plane connections.

(ii) Adherence by the hotel industry to a code of ethics.

(iii) Display in the rooms of the room price stating what other additional charges such as sales-tax, service charge, charge for supply of coal, air conditioning etc. are leviable.

(iv) Definition of the terms "American Plan" (Room with Full Board) "European Plan" (Room only) or "Commonwealth Plan" (Room and Breakfast).

(v) Definition of the terms 'bed tea', 'breakfast', 'lunch', 'afternoon tea' and 'dinner'.

(vi) Stipulation for the display of menus and prices outside the dining rooms and inside the lifts.

(vii) Stipulation of a uniform, percentage of service charge and the mode of its collection and distribution.

(viii) Provision of adequate fresh linen each day.

Provision to ensure cleanliness and modern sanitary conditions and proper cleansing arrangements in the kitchen.

Extension of the Employees Health Insurance Legislation to all hotel employees of the requisite category.

Enactment of comprehensive Housing Legislation concerning hotels, restaurants, eating houses and dealing with overcrowding, kitchens, safety, sanitation, airconditioning, ventilation, building construction, plumbing, fixtures, bath rooms, lavatories and all allied matters.

Legislation for the creation and the setting up of catering and training establishments specially designed for the training of staff from the craft level to the management level.

In view of the fact that the enactment of comprehensive legislation recommended by us is, in the nature of

things, likely to take some time, it is urged that the Tourist Department should immediately take up with the State Governments concerned the question of relaxation of such of the existing laws as operate adversely against the satisfactory and efficient working of the Hotel Industry and consequently militate against the best interests of tourism.

Service Charge And Tipping

In view of the harassment caused to the tourist, both Indian and foreign, in the matter of the demands made by the staff for what is euphemistically called 'Bakhshish' having assumed serious proportions, there should be strict prohibition under the law against this practice.

The hoteliers organisation should ensure that strict disciplinary action will be taken in order to eliminate the evil of soliciting for tips in the hotels owned by them.

There should be levied a uniform service charge of 10% which should be set apart for distribution on the Continental system. Care should however be taken that this in no way upsets the pay structure i.e. the payment of fair wages to the staff.

Conciliation

It will be apparent that in well organised countries it is not the law which has brought about better conditions of service but the strength of the trade union of the employees operating in a reasonable manner for the purpose of achieving the best standards of work and pay that they can. We, therefore, recommend that the first attempt should be the strengthening of the existing unions and making them representative of the entire staff employed by a hotel establishment. Preferably the unions should be unions of all employees engaged in the hotel industry in a town and if necessary a federation in a State so that any agreements that are arrived at are universal and are binding. This is the ideal method but where this cannot be achieved or until it is achieved our recommendation is that Standing Conciliation Machinery should be established for the Hotel Industry town by town, and, State by State with equal representation of the management and of the staff with an independent Chairman, who, as in the case of the city of San Francisco, should be named and should operate for a certain period but named only after agreement between the two parties namely the employees and the employers. The remuneration of the Chairman should be a charge on the resources of the State, the union and/or the hotel administration. There should be no matter left out of consideration of the Conciliation Board whether it relates to wages, hours of work, meals, conditions of service or disputes of any kind that might arise between employees and the employers. By means of this internal machinery for settlement of these disputes, grievances and bitterness that we have found existing in

the hotel industry will be avoided and the employees and the employers are bound to come together instead of living apart and working up anger in their hearts against each other.

Provision Of Common Fund

We suggest that the Statistical Section already in existence in the Ministry of Transport, should be properly strengthened and legislation should provide for obtaining correct information from the hotels and other sources so that not only are the statistics compiled but compiled expeditiously. The objective should be to obtain and issue a weekly report of the progress being made in regard to tourism, followed by monthly, six-monthly or yearly reports without which a planned development will be well nigh impossible.

From 1948-55, the Common Fund administered by the European Travel Commission alone spent 2 million dollars for the purpose of promoting European tourism in the United States and Europe. Thus, it will be seen that Government Agencies and various sections of the industry dealing with hotels have both joined hands to make possible the achievement of this phenomenal increase in tourist towards Europe.

Some such thing has to be done if we are to reap the rich harvest of this increase in some measure. But it can only be done if all agencies combined are ready to spend large sums towards this end both in the provisions of amenities and comforts through the hotel industry and in the matter of publicity throughout the world and in particular in Europe and the United States of America.

What we have to think about today is how to find ways and means of increasing the total number of foreign visitors from 86,000 to at least half a million a year. For this purpose we have to find over 400 thousand new visitors under a planned scheme and wherever assistance is necessary to provide the assistance in order to achieve this end. We have at the same time to ensure for these prospective tourists suitable conditions of stay in our country. In order to achieve this objective the lowering of the cost of travel is one of the essential things. Secondly, it is essential to promote big publicity campaigns boosting the advantages of travel to India. Thirdly, a provision of a fund on the same basis as the Common Fund of the European Travel Commission to which State Governments and Central Government, the hotel industry, travel agencies, shipping firms and Air Companies should contribute in an adequate manner. We recommend towards this end that the Fund should be known as the Common Fund and that it should be augmented by a levy of a two per cent surcharge on all accommodation, supply and service on bills prepared by hotels, restaurants or other catering establishment bills. With this end in view it is necessary therefore, to examine the question of the existing facilities for

stay and the manner in which these facilities can be improved at the focal points in the important cities and at places of tourist interest. We have at the same time to realise that the inadequacy of internal air travel, the difficulty of finding connections, the impossibility of being certain of reservations booked in advance, have to be tackled immediately. Such difficulties must be avoided at all cost and any tourists booked on a certain passage from or certain town on a certain date must be guaranteed that accommodation, come what may.

Prohibition

Bombay: Availability of permits to foreign tourists should be made as simple as possible.

Liquor should be allowed to be served to tourists in their rooms at all times and also with their meals.

Each hotel should be allowed to have a permit room where tourists can entertain their guests and the hours should be till such time as the hotel licence permits them to keep open the dining room and the restaurant.

On special occasions permits should be given for late night closing of the dining room and the restaurant.

Permit rooms should be kept open on Sundays and holidays.

There should be no dry days.

The tourists coming to India should be given the necessary permits not only to consume alcoholic drinks in their own rooms, bar room or in public rooms but also along with their meals. These permits should be handed over to them along with their visas for the duration of their stay or, in the alternative, immediately on landing at the Customs Check Post.

For the next 10 years the above method should be adopted which in the opinion of the Committee is not likely to lead to abuse.

Madras: Besides the above facilities which should also apply to Madras, facilities should be given for drinks to be served by the hotel to permit holders both foreign and Indian in their rooms and in the dining rooms with their meals.

Delhi: In the hotels catering for foreign tourists, residents and their guests should be allowed to be served drinks not merely in their own bed rooms, but in the dining room, the lounge and the bar room and with their meals.

There should be no dry days.

The Committee also recommends that the hotel establishments should be given necessary users' licences to import their yearly requirements direct from abroad eliminating the middleman and thus reducing the cost to the consumer. We consider that within the Prohibition policy and the framework of the law the procedure adopted by certain States, including Delhi, should be liberalised.

Training Of Hotel Personnel

With properly trained staff, the cost will go down, the guests will get better service and the staff will receive higher wages.

It is most essential that in the planned development of the hotel industry important steps should be taken towards the establishment of training centres of the highest standard properly housed with adequate modern equipment for training purposes, and a competent staff.

Training

In reference to Training Institutes, we recommend that the courses should be divided into two—full time and part time. Large numbers of staff already in service with some experience and background would be benefited greatly by part time training courses.

The curriculum such as is provided in Institutes abroad should be adopted by the Universities everywhere in India for the conferment of Diplomas and Degrees.

Universities should open courses which should be recognised for the purpose of conferment of Diplomas and Degrees in hotel management and in various crafts concerned with the hotel industry.

In addition, catering establishments should be established in places indicated by us and suitably housed and supported financially by the State, the Centre and the hotel industry. These should incorporate managerial training equivalent to the standard of the Associate Membership Examination of the Hotel Catering Institute of Great Britain.

The number of students in these institutes should be in conformity with the plans for development of the hotel industry envisaged for the next few years, thus ensuring full employment.

The services of experienced foreigners in the country should be utilised and their vast experience made available for this purpose for as long a period as it is necessary.

Licences for the purchase of equipment from abroad should be made available for the purposes of the training institutes. If necessary, assistance may be taken out of the Fund suggested by the Committee for this purpose apart from the assistance given by the States and the Centre, should such a contingency arise.

Apart from the training institute recommended by us, incentive should be provided, as suggested by the Federation of Hotel and Restaurant Associations of India, to private enterprise in order to encourage it to build and operate hotel training schools. The best method for this purpose is the allotment of land free of charge, subsidies and grants for the purpose of meeting operational expenses.

The Committee recommends that training institute of the type suggested should be opened up in as many places as necessary for the requirements of the industry.

We further recommend that until such time that the training institutes as recommended by the Committee are in a position to turn out trained personnel both on the managerial and the credit side, the present scheme of giving scholarships to selected trainees to attend courses abroad should be continued and further the Committee is definitely of the opinion that until such time as managerial or craft personnel can be properly trained in the institutes indicated and capable of taking charge of the top positions in the hotel industry in their respective spheres, foreign expert personnel both managerial and craft, should be allowed to continue or allowed to be engaged from abroad. This, in our opinion, is of vital importance in the development of this industry in view of the fact that trained expert personnel of highest kind is not to be found in India at present.

It will be necessary to adopt a National Apprenticeship Scheme for all classes not only for cooks but also for all employees who are to be trained for this purpose. We recommend the creation of a National Joint Apprenticeship Council of the hotel and catering industry. It should have four representatives of the hotel Federation, four representatives of trade unions serving the hotel and catering industry, two representatives of the Tourist Department, two representatives of the Ministry of Education on the technical side, one representing the Ministry of Labour, four members of Parliament representing the public and the consumer interests. The purpose of this scheme should be to provide for the recruitment and systematic training of men and women workers. The period of apprenticeship should be not less than three years and not more than five years terminable at the maximum age of 23. Apprenticeship should start from the normal school-leaving age but older apprenticeship may also be accepted. Employers will have the right to register not more than two apprentices each but the applications must in all cases be approved by the Council.

Public Sector And Private Sector Industry

The Committee have been informed that provision exists in the Second Five-Year Plan relating to the Ministry of Transport for the establishment of 25 Rest Houses catering for the low income groups and that the Ministry of W.H. & S. has already built Rest Houses in places like Sanchi, Budh Gaya and Kushinagar. A rest house, we learn costing Rs. two-and-a-half lakhs is going to be built at Pathankot and that other steps are in hand in the U.P. and elsewhere for similar developments.

The question has arisen of the control of these new Rest Houses as well as of the existing Dak Bungalows and Rest Houses, Circuit Houses etc. throughout India. We recommend that the Central Committee suggested by us should be in the closest touch with State Governments in respect of the functioning of these Rest Houses and

the provision of new ones. The question of functioning includes furnishings, service and other amenities as well as fixation of rates for board and lodging and the provision of linen, bed linen and other amenities. We recommend some uniformity being brought in not only in the construction of these establishments, Dak Bungalows, Rest Houses etc., but also in their functioning, their rate structure, the amenities that they provide and the control to be exercised over them. Obviously India is a country which, for the purposes of tourism, needs literally thousands of Rest Houses of this kind and our experience shows that buildings already in existence could easily be converted to a proper use for the benefit of the tourist—whether Indian or foreign.

We are of the opinion that the organised system of Rest Houses in Ceylon is the method that we should follow in the management of Rest Houses in India and we are firmly of the opinion that this cannot be done if ten different authorities in different parts of India deal with these establishments instead of a central coordinating authority which could delegate its functioning to local organisations either of its own or of the State Governments keeping overall control in its hands.

We suggest, initially an expenditure of two crores on the building and furnishing of one hundred such Rest Houses in different parts of India needing such accommodation for the benefit of tourists, and extra adequate expenditure on renovating and refurnishing and improving existing ones. We also suggest that the extra accommodation, save a room or two, should be made available to tourists in order to avoid the existing complaint that such accommodation is seldom available when needed.

Finally, we suggest that not the Deputy Commissioners or Collectors etc., but Tourist Councils should be the bodies authorised to issue permits for the use of all such Rest Houses etc., in order to eliminate unnecessary harassment of tourists wanting to use such accommodation.

The Committee has been impressed by the necessity of establishing through a widespread system, properly suited to Indian conditions, small roadside Motels for tourists where Dak Bungalows and Rest Houses are not available or are inadequate for this purpose.

Taking the distance to be covered for the purpose of these institutions at about 100,000 miles, we suggest that at least 100 such Motels should be provided for the use of travellers.

The main purpose would be defeated if such accommodation recommended by us for the low income groups is not properly subsidised both in regard to travel charges and in regard to food and accommodation. So far as the youth movement is concerned, the matter should be dealt with in consultation with the Central Ministry of Education (which indeed at present

is dealing with it). We understand that the Ministry has agreed in principle to the establishment of Youth Hostels, although the question of the financial details of control and provision are not yet finalised. Obviously all the Ministries concerned will have to cooperate with the Central Tourist Organisation and not only cooperate but assist this organisation financially and otherwise in order that the objectives we aim at are achieved.

Indian Style Hotels

The question of internal tourism is also of the greatest importance and deserves consideration on a top priority basis. The Committee is firmly of the opinion that the possibilities and potentialities of the development of internal tourism are unlimited.

After visiting a cross section of such establishments throughout the country the Committee came to the conclusion that all such establishments should be classified according to the system of A.B.C. keeping in view the amenities, comforts, situation, service and such like factors available in these establishments.

We consider it most important that the working of these establishments should be carefully examined by a separate Committee with a view to the elimination of those establishments which are a danger to the health and well-being of the community and with a view to the standardisation of those that remain, keeping in view the basic necessities of hygiene, comforts, cleanliness and the amenities offered to the Indian traveller. The Committee recommends that it is most essential to encourage private concerns in the first instance to establish low-priced establishments everywhere, failing which it must be the duty of the State, if necessary, to construct and operate such establishments. This is a very vast undertaking and we recommend that, if it is to be undertaken by State Governments or by the Centre an autonomous Corporation should be set up for this purpose utilising all available talent and experience gained by people in the hotel industry.

Hygiene, Cleanliness And Food

In India we have found that some control is exercised in regard to the health of the staff operating in hotel establishments through the appointment of either a Resident Doctor or a Visiting Doctor. But in most cases this control is not adequate. It is not sufficient for instance that an employee should be examined once and then let go. There should be some arrangement for regular checks in regard to health matters. The first essential in the matter of legislation is to provide for adequate and constant health protection methods as far as the employees are concerned and at the same time to see that the standards laid down in the legislation that we have referred to regarding health and cleanliness are adhered to. It is necessary that the Health Departments

of Corporations and Municipalities as well as the staff specially deputed for this purpose attached to the Tourist Department should at all times have the right to enter the hotel premises for inspection purposes. It is obvious that there should be no duplication. For instance, where the Corporation or Municipality services are adequate for this purpose, it is not necessary for the Tourist Department to duplicate these services. All owners of restaurants and hotel establishments should be asked to post at prominent places provisions of relevant laws, rules or regulations relating to hygiene and cleanliness in the regional language as well as English. It is the kitchen where the utmost attention has to be paid to the proper lay-out, equipping and cleanliness in all hotels and restaurants. It is necessary that the law should prohibit the use of any utensils which are not in a perfectly clean condition. All multiuse dishes and utensils should be kept free of breaks, corrosion, open seams, cracks and chipped places. It is necessary to provide adequate washing arrangements with proper sinks and drain boards with an adequate supply of running hot and cold water. Wherever possible dish-washing machines should be installed.

The Committee's attention was drawn to the existing state of numerous catering establishments that have sprung up everywhere in recent years, to the rules and regulations applicable to these establishments and to the lack of control being exercised at present in the matter of sanitation resulting in the possibility of infection. Some States have taken measures to examine this situation particularly in the metropolitan cities and we recommend to the attention of the Government the steps taken by the Madras Government and the report prepared by its Committee known as the Hotel Sanitation Committee.

Tourist Publicity

In the opinion of the Committee it is most essential that publicity should be looked at from the double angle, internal and external, and the production and the dissemination of the two types of publicity material should be organised on a separate basis, foreign publicity material being entirely under the supervision and control, in regard to production and dissemination, of the Tourist Department of the Ministry of Transport. From this point of view, the Committee feels that it is necessary to undertake an examination of the present situation, so that the above objectives are achieved as quickly as possible.

The Committee was struck by the fact that a very fine organisation has been set up by the Tourist Department of the Ministry of Transport for the distribution of publicity literature abroad and that that organisation is functioning in a most highly efficient and scientific manner. At the same time the Committee feels that not

enough has been spent in the matter of publicity abroad by the private sector, namely, the hoteliers and the Travel Agents. In this connection, the Committee has been informed that in a country like Switzerland, a sum of eight million Swiss Francs is spent annually by the Hotel Industry in publicising their institutions abroad. The Committee suggests that both the Hotel Federation and the Travel Agents Association in India should get together for the purpose of assisting the authorities in the matter of publicising the Hotel Industry in foreign countries on similar lines. It is understood by the Committee that in spite of the difficult foreign exchange position, the Government of India, at the request of the Tourist Department of the Ministry of Transport, has allocated a sum of Rs. two lakhs during the current year for the purpose of enabling the hoteliers and the travel agents to make their contacts abroad, either through travel or through publicity. The Committee feels that on the one hand the Hotel Industry as well as the Travel Agents combined should make a much bigger effort for the purposes of foreign publicity and on the other hand appreciating such an effort the Government of India should make available larger sums in foreign exchange for the purposes of foreign publicity.

Kashmir

The Committee was struck, by the fact that new wooden chateaus or tourist huts were being constructed by the State comfortably furnished with modern sanitation which could be rented at a very moderate price by the season in places like Pahalgam. It is necessary in our opinion to give wide publicity to this fact and to provide a greater number of such tourist huts for the travelling public visiting Kashmir for a longer stay.

The Committee was greatly impressed by the reduction of the rail-cum-air fares to Kashmir and the step taken by the railways in providing a return ticket at one-and-a-half times the price of the single journey ticket available for a certain period of stay. The Committee recommends that this matter should be constantly kept in mind and reviewed with the objective of a further reduction in rates, if such reduction will help in furthering the visits of tourists to Kashmir.

It is necessary in the opinion of the Committee that youth hostels and accommodation for pilgrims should be available in a large way at various centres in the State and there is no reason, in view of the cheapness of wood and the addiction of the citizens of Kashmir to the use of wood as a principal building material, why the tourist hut system should not be introduced for the purpose of youth hostels and pilgrim accommodation centres throughout the State.

The industrial and mineral possibilities of the State are enormous and we anticipate a very large influx year by year of both tourists and business people into the valley

of Kashmir. It is not necessary to provide any further deluxe accommodation in the valley except to the extent of modernising a large number of houseboats in Srinagar.

But it is necessary that the small boarding houses, often run with great efficiency and success, should be encouraged and necessary subsidies and financial assistance given so that they are able to keep up their standards and provide necessary improvements and additions from year to year. The charges levied by these establishments are reasonable and the food and surroundings and the furnishings of the rooms are attractive on the whole. But a strict watch should be kept on the state of cleanliness and the authorities in charge should not hesitate to take prompt penal action, should there be found any deterioration from normal standards laid down in this respect. The Committee recommends that all Travel Agencies and Tourist Organisations should be brought into action for the purpose of publicising the joys of a visit to Kashmir.

In order that tourists visiting northern parts of India or Delhi are induced or are enabled to spend at least a short holiday in Kashmir during their sojourn in northern India, it is necessary that the existing rigid formalities for visits of foreign or Indian tourists to Kashmir should be minimised and permits made available even on holidays and at all reasonable hours of the day.

There are vast areas in Kashmir of great interest from the point of view of *shikar* which are yet to be explored or opened up. The Committee recommends that this aspect should be examined carefully by a Local Committee set up for this purpose whose recommendations should be implemented with expedition, whether they relate to the opening up of new roads, new transport facilities, new Rest Houses, Dak Bungalows or Tourist huts or any other facilities that may be necessary for the purpose of opening up these new avenues of travel.

The Committee was greatly impressed with the officers in charge of the Tourist Organisation in Kashmir which is functioning in a satisfactory manner up to the limit of the experience so far gained. The newly constructed Reception Centre has a lounge, a restaurant attached to it and it is very necessary that cleanliness should be ensured and the charges kept down to the minimum without affecting the quality of the food and drinks available.

For the foreign tourists, it is important to emphasise the fact that there are no restrictions regarding prohibition in the entire valley of Kashmir and in the opinion of the Committee this state of affairs should continue if foreign tourists are to be attracted on a large scale.

The Committee recommends that the Shikar Bungalow at Dachigam should be made available for *Shikar* parties and for parties of tourists wanting complete rest and that similar bungalows should be built elsewhere for this purpose as we are convinced that they can always

be made self-supporting and will constitute an extra attraction for visitors both Indian and foreign.

The Committee recommends that there should be no limit in a reasonable way to the amount of financial assistance that should be made available to the State of Jammu & Kashmir for the purpose of the development of tourism, if out of its own resources the State is unable to meet the expenditure. For this purpose the Committee recommends that the Ministry of Transport in the Tourist Department should confer with the Tourist Organisation in Kashmir and draw up a planned and phased basis for the purpose of providing greater and better amenities for the travelling public in Kashmir. One of the essential things in this respect is the provision of cheap road transport in the valley. A holiday in Kashmir is often marred by the expenditure people have to incur for such transport which often is not available. This is a matter which should be the concern of the Tourist Organisation in Kashmir and we suggest the import of cheap priced diesel vehicles of the Volks-Wagon type or any other suitable type should be permitted to the extent required.

We are finally concerned that proper publicity should be conducted abroad and in India so that the attractions of Kashmir are presented as of primary importance in the tour itineraries arranged by Travel Agencies and other organisations for prospective tourists.

Places Of Tourist Interest And Their Development

Grouping of tourist centres for the purpose of arranging systematic tours, we are told, has been done by some tourist agencies and booklets have been prepared on the subject of 'Tours in India'. The Committee is of the opinion that in the drawing up of a schedule giving a general idea of the centres of tourist interest both youth hostel aspect as well as the aspect of pilgrim accommodation should be kept in view. From the transport point of view, it is necessary to see that adequate rail, air or road connections are available in the existing centres of tourist attraction and for the others that are to be developed. An accelerated drive should be made to develop other centres of tourist attraction, the first essential is the provision of transport. Even at the sacrifice of revenue, it is necessary that places of tourist interest should be connected by air and the road approach improved and modernised. For instance, there is no regular air service to Khajuraho at the present moment. The approach to the Sun Temple at Konarak is only by road and suitable arrangement should be taken in hand for the purpose of building small aerodromes, like the one at Bhuvaneshwar, with centres like Konarak and centres of rest and pleasure like Gopalpur-on-sea.

The Committee received some valuable information regarding the Tel Valley Civilization and its rich archaeological remains in Orissa. These sites remain

neglected and almost in a forgotten state. Our attention was drawn to the temples and statues of Khichin in Mayurbhanj which date back to the ninth century A.D. It appears that in addition to the sites at Bhuvaneshwar, Puri and Konarak, there is also 'Dev Kund' which is a spot of great natural beauty. The coins and images that have been found in this area date back to the Kushan period. This area attracts thousands of pilgrims every year. It is sacred to the Goddess Ambika. The jungles around are said to contain prehistoric animals like giant flying squirrels. If this site is developed into a tourist centre, it is bound to attract thousands of visitors from abroad as well as from India. This area, Dev Kund and Ambika Mahapith, are already being developed by the Government as a national park because of the extraordinary beauty of their natural surroundings and their association with our cultural past dating back to the first or second century A.D. and its rich heritage of wild life and beautiful flora suggest that immediate attention should be paid to this area with a view to its development and utilisation in the national interest.

We also draw the attention of the Government to the urgent necessity of developing the Kulu and Kangra Valleys for the purposes of tourist traffic. We consider that the following matters should be given priority both by the State Government and the Central Government:

(i) The opening up of a large sized aerodrome in the Bahl Valley which is most suitable for this purpose and is likely to cost a much smaller sum than any other site available in this area. The natural advantages of the utilisation of the site are obvious.

(ii) Small hotels of the Italian tourist type should be established in the valley.

(iii) The State or the Central Government should establish a sanatorium at the site of the Hotel Sulphur Springs and be charged with their maintenance in proper condition with the service of medical assistance available on the spot with accommodation to begin with to at least a 100 beds. Timber from the valley can be utilised for this purpose thus cheapening the cost. Even log huts of the type that are available in places like Lake Louise, Canada, accommodating a family, will be suitable to begin with and later could form the basis for extra accommodation when needed.

(iv) The road from Bhakra to Mandi should be developed. It is only a few miles and the development of this road would be the easiest and quickest means of approach to the Kulu Valley. The economic possibility of opening up this valley by road, rail and aeroplane traffic deserve the immediate attention of the authorities. The economic possibilities include the development of the Pashmina industry, the lifting of high grade fruit, the canning of fruit and vegetables, the manufacture of cider and the development of mineral resources including iron

ore, antimony and rock salt and the development on a large scale of cottage industries and handicrafts.

(v) The development of the seed of Spiti peonies which were famous once upon a time and seem to be dying out.

(vi) The road that goes up the valley is on the left side at present. It is very close to the main Beas river. But when there are heavy floods and the river slightly changes its course it knocks against the pillar of the bridge, and the road and the bridge are both liable to destruction. There is no road on the right side of the bank going up and it is necessary to build a road which is now only a pony track and avoid all the dangers of erosion which have caused tremendous financial losses in the past.

We draw the special attention of the authorities to the valuable suggestions made by the representatives of the Himachal Pradesh Government and the need stressed by them of opening a Spa at Tattapani and the development of roads and transport on the Tibet road as well as the necessity of all-the-year-round ice skating rink as well as adequate provision for winter sports in Simla.

We have been greatly impressed by the importance attached to social tourism in the concept of the developing economy of our country. The object of social tourism is not only to provide holidays to people of the lower income groups who normally are unable to afford them but to fit the scheme into the newly developing ideas of paid holidays for workers, assistance to the youth travel movement as well as to the movement of pilgrims throughout our land. Our objective is the welfare State. The welfare State depends for its existence upon the willing cooperation of the working classes and the peasantry who form 98 per cent of the population of our country. The welfare State has to function for their benefit and would have no meaning if it did not. One of the objectives of the welfare State must necessarily be the provision of paid holidays to workers and subsidised travel for the youth of our country. It is one of the essential items and is a kind of

education for the younger people to be able to see their country, meet the people of cultural interest as well as of industrial importance. It is only thus, that the lack of understanding of each other's needs of the different people that live in this country can be put an end to. Further, such social tourism would create deep interest and enthusiasm for the great industrial revolution we are witnessing. Planned economy has to be brought home visually to large masses of our people by affording them an opportunity of seeing our industrial plans in action. So visits to Nangal-Bhakra, to the Steel Plants, to Sindri, Chittaranjan, Bangalore and other centres must necessarily be arranged on a concessional basis for those wanting to see the sites and acquaint themselves with the spirit of the great industrial-revolution.

We recommend that the system of paid holidays for workers should be introduced in every hotel establishment and extended elsewhere. This must be a compulsory provision. We recommend further that subsidised tours on a very large basis should be organised by the Railways for the student community and young people generally. We also recommend that similar subsidised tours should be organised on a large scale for pilgrims wanting to travel from their homes to the places of pilgrimage throughout India.

The Committee while drawing the attention of the Government to places of tourist interest worthy of development wants to make it clear that the places mentioned by it are by no means exclusive but that large areas of tourist importance need to be brought to the notice of the public throughout the country, and many beauty spots in the States of Mysore, Kerala, Orissa and elsewhere need special attention from the point of view of tourist interest. In fact there is so much of interest for the tourist in almost every part of India that it is necessary only to draw general attention to the problem, except in the places which we have specified as almost everywhere in India, there is need for special attention being paid to places of tourist importance.

IRRIGATION AND POWER TEAM ON CHAMBAL PROJECT (MADHYA PRADESH AND RAJASTHAN), 1957—REPORT

New Delhi, Committee on Plan Projects, 1958. 119p.+iiip.+Charts.

Leader : Shri N.V. Gadgil.

Members : Shri Lal Singh; Shri M. Narasimhaiya;
Shri C.L. Handa; Shri G.N. Pandit.

Secretary : Shri D.S. Borker.

APPOINTMENT

The Irrigation and Power Team on Chambal Project

IN INDIA 1957

(Madhya Pradesh and Rajasthan) was constituted under the Committee on Plan Projects in 1957 by the National Development Council.

TERMS OF REFERENCE

(1) To study all aspects of the Project having a bearing on economy and efficiency with special reference to:

(a) Utilisation of trained personnel and materials;
(b) Utilisation of machinery and equipment;
(c) Construction—Plant lay-out;
(d) Adequacy of original estimates and designs as evidenced from actual construction of the Project;

(e) Phasing of construction with a view to studying whether:

(i) timely utilisation of benefits accruing from the Project has been ensured;
(ii) it is possible to accelerate accrual of benefits;
(iii) benefits could be increased by rephasing the Project at this stage;

(f) Sufficiency of investigations conducted at the planning stage with a view to the formulation of Project Estimates;

(g) The effect of the above study on the financial results of the Project, if any.

(2) *Generally to assess the progress made in construction, the reasons for shortfall, if any, and to suggest measures for improvements in the future.*

(3) To examine the possibility of decreasing dependence upon imported materials and equipment required for the Project.

(4) To examine whether adequate steps have been taken by the authorities concerned for fixing and realising the contemplated water rates, betterment fees and/or any other rates, cesses or taxes.

(5) Any other recommendation that the Team may like to make in order to ensure economy and efficiency in the construction of the Project.

CONTENTS

Preface; Introductory; Administration; Features of Design and Construction; Phasing of Project; Management of Irrigation and Utilization of Water; Power Generation; Works Needing Urgent Attention; Costs of Project; Summary of the Report; Appendices I to XXI-B.

RECOMMENDATIONS

History And Salient Features Of Project

The Chambal Project originally estimated to cost Rs. 77 crores would consist of three storage reservoirs with power houses and a barrage with attendant canal works. On completion, it would irrigate 14 lakhs of acres and generate 210,000 kw of electricity. By the end of Second Plan it is planned to achieve almost full irrigation benefits and to generate a maximum of 92,000 kw of power.

The Project has undergone several changes before it was officially sanctioned in 1954 though the work was started in 1953. These changes were inevitable in view of the then existing princely States which were merged in different stages subsequently while active consideration was being given to the preparation of the Project. No precise schedules of materials, technical personnel,

machinery and equipment could be drawn at the commencement of the Project.

Administration

The dominant impressions gathered regarding the administration of the Project are as under:

(a) One of the main functions of the Control Board in agricultural planning and phasing of field channels for the proper utilisation of water. The former requires two to three years' experimentation ahead of the target date and the latter involves complex scheduling in advance. In both these cases nothing tangible has been done so far.

(b) Preparation of detailed estimates and schedule of rates is lagging badly.

(c) Inordinate delays are noticed in the States' implementing decision taken by the Board.

To remedy this serious situation, the report recommends:

(i) State Finance Secretaries should be *ex-officio* Members of the Board;

(ii) Technical designs should be regularly subjected to check by an independent technical agency;

(iii) An agricultural expert should be made a Member of the Board or at least consulted regularly;

(iv) The Board should set up machinery for carrying out the main functions assigned to it;

(v) Specified Executive Engineer in each Project and an A.F.A. should be made jointly responsible for preparing estimates and schedule of rates within three to six months;

(vi) Pending completion of work at (v), Chief Engineers may be given larger financial and administrative powers in respect of acceptance of tenders and sanctioning of estimates without obtaining prior concurrence of Financial Adviser; and

(vii) The above proposals would mean a much greater burden on the Chairman of the Board than hitherto rendering his job virtually a whole time function.

Personnel

Staffing position on the Project is difficult particularly in Madhya Pradesh area. To remedy the situation the report suggests:

(a) The State cadres may be expanded to include the post-projects requirements so that some of the temporary incumbents could be absorbed taking into account lengths of their previous services;

(b) The ultimate solution lies in pooling of the existing resources to the best advantage of all the projects in the country by creating an All India Reserve of officers who could be utilised to strengthen the projects as and when necessary since each State cannot appreciate the overall situation;

(c) As it takes a long time to recruit personnel by

each Public Service Commission, a Committee consisting of a Member from each of the Commissions, each acting as Chairman alternately and two eminent engineers as other Members should be empowered to recruit the necessary personnel; and

(d) The Project authorities should organise courses so as to fit the existing personnel to some of the routine tasks connected with the construction of the Dam, the Canals and the electrical equipment for power houses and transmission lines.

Agencies Of Construction

Some works are done departmentally, some by contracts and some in a composite way. M/s Gammons are entrusted with the complicated work of the Kunu Syphon. In addition, the National Projects Construction Corporation has been given a large number of works costing about Rs. two-and-a-half crores. The potentialities of this organisation are considerable especially when contracting resources all over the country are overstressed due to the increasing demands of the Second Five-Year Plan.

Features Of Design And Construction

Design of Kotah Barrage: The design of the earthen dam which forms a part of the barrage has undergone a continuous evolution involving six designs in all. After discussing the fifth design with the C.W.&P.C., the Consultative Committee stressed the necessity of devising other methods of protecting the foundations as neither the clay grouting nor the sheet piles could be considered fully effective in serving their purpose. The Consultative Committee considers that the design number six subject to modifications agreed upon on January 15, 1958, is the most satisfactory and stresses the need to programme the work into its minutest detail including strengthening of personnel. The report suggests that the retired Chief Engineers of the country should be given a proper retainer and distributed over various projects costing more than 15 crores for consultations. Each such project should have a Consultative Committee with the necessary specialised personnel. This device is specially relevant in our country so as to have an independent and objective check over the the designs on Irrigation and Power Projects prepared by the State authorities or the C.W.&P.C., in view of the fact that there are no consultants available in the private sector in this field unlike in the western countries.

Canal Lining: The Team proposes to provide lime surkhi concrete bedding in the canal reaches passing through rocky terrain, instead of cement concrete. This alternative would result in conservation of scarce materials like cement as well as a saving of about 15 to 20 lakhs of rupees.

Designs Organisation: Chief Engineer, Madhya Pra-

desh gets all the designs from C.W.&P.C. It is the view of the Team that some of these designs which are not of a major character could with advantage and convenience be prepared by the Chief Engineer himself. For this purpose a special design cell with suitable staffing needs to be created under the control of the Chief Engineer. Design Officers both in Rajasthan and Madhya Pradesh may be drawn from the establishment of the C.W.&P.C. who should work under the direction of the Chief Engineers, affording an opportunity to the Project Authorities of knowing the mind of C.W.&P.C. Also the Officers thus drawn from C.W.&P.C. would gain experience of changes in designs in actual construction.

Quality Control: The report recommends the practices followed on the Bhakra Project, that is to appoint a special inspection and control organisation under the Chief Engineers, so as to have an objective analysis of factors influencing quality of work.

Agency for Constructing Field Channels: Customary practice of constructing field channels is to leave the works to the villagers themselves. But the main drawback is that it is not possible to enthuse them to the extent necessary having regard to the existing standards of people in these areas. Therefore, it is most desirable that the Project authorities themselves should construct the channels recovering the cost from the villagers. If this is not done, it may take a long time to realise the irrigation benefits from the Project. In order to enthuse the cultivators village committees working under the guidance of an overall committee in every administrative division under the chairmanship of the commissioner concerned and with Superintending Engineer or Local Executive Engineer as Members to undertake detailed planning, should be instituted.

Phasing Of Construction Programme

Gandhi Sagar Dam and Kotah Barrage: There has been a delay in obtaining penstock gates which resulted in setting back the progress on the Gandhi Sagar Dam, which is now expected to be completed by 1959, instead of 1958 as originally planned. The Kotah Barrage is also now expected to be completed in 1959.

Canals and distributaries are expected to be completed by 1962-63. However, the Team feels that the period of completion of the canals could be advanced provided funds are made available. Looking to the rising tempo of work and the capacity of the machinery, it is considered that this acceleration could be achieved.

Acceleration of Construction of Rana Pratap Sagar Dam: The integrated development of Chambal River Valley envisages construction of Rana Pratap Sagar Dam 20 miles below Gandhi Sagar Dam. Therefore the original intention was to start the construction of the dam in the winter of 1957. Although preliminary Project report has been submitted by the Chief Engineer,

Rajasthan, certain important investigations relating to power house remain to be done. The Team considers it necessary to expedite work on the remaining investigations and dovetail the construction of the Rana Pratap Sagar Dam with that of Gandhi Sagar Dam which would

(a) facilitate installation of power plants at a short notice, when necessary;

(b) incidentally result in a saving of Rs. 54 lakhs by utilising some of the machinery and buildings at Gandhi Sagar Dam.

Agricultural Aspects

The Team worked in close cooperation with the State authorities, both at technical level and administrative (Ministers) level, so that the recommendations are the outcome of joint discussion of the Team and State authorities.

For a Project of the size and nature of Chambal, it was necessary to have a Master Schedule before initiation of the enterprise. This shortcoming could be attributed to (a) two States concerned lacked the necessary institutional arrangement and not having Development Committee consisting of Engineering, Agricultural, Administrative and Revenue Experts to work out the details of utilisation as done by Mysore State, and (b) the Control Board, while consisting of experienced persons in Irrigation, had no agricultural expert on it for giving serious thought to agricultural aspect. It is highly desirable to associate an agricultural expert in all the Control Boards.

The Team considers that the period of 10 years for realising the benefit of irrigation, can be reduced to half, *provided* the recommendations relating to agricultural aspect are immediately implemented. The State Agriculture Department fully agrees with this view. Economic benefit both to the agriculturists and the country, by hastening the utilisation programme, cannot be underestimated.

Presumptions of Project authorities, both in regard to increased yield of foodgrains and the financial return on the Project, are not likely to be realised. Kharif food-grain crops would require little irrigation on account of ample rainfall and financial return will depend upon the extent to which the cultivators find irrigation a remunerative practice. On the other hand, anticipated financial returns can be easily realised and even be exceeded, if agricultural aspect of the Project is given due attention with least delay.

The agricultural problems are discussed under three headings:

(a) Changes in agriculture pattern.

(b) Serious problems already existing.

(c) Urgent steps to be taken for deriving maximum benefits from canal irrigation.

The present pattern of agriculture is distressing,

people generally lazy, crop yields poor, elementary principles of dry farming not observed, farmyard manure largely wasted, composting and green manuring almost unknown, even big cities like Kotah (Rajasthan) utilising thousands of tons of town refuse and animal dung just for filling depressions, milk yield of milch-animals disgustingly low on account of poor feeding and poor breeding, and area under cash crops almost insignificant. All this is likely to undergo revolutionary change with the advent of canal irrigation. Future cropping pattern would largely depend upon the extent to which the State Agriculture Department is able to solve the problems of agriculturists under altered conditions.

Water allowance per thousand acres on this canal seems liberal in view of much heavier rainfall and much higher ground water level in the former. Secondly, G.C.A. and C.C.A. require to be confirmed for various reasons.

High salt contents of water and high water table in the percolation wells in several areas of both Rajasthan and Madhya Pradesh—particularly in Digod Tehsil in Rajasthan and Gohad and Mehgaon Tehsils in Madhya Pradesh, point to serious dangers of water-logging and salinity of land which must be safeguarded against, if canal irrigation is not to prove ultimately injurious.

Measures to prevent waterlogging, salinity and bad drainage such as lining canals, distributaries, minors, providing satisfactory drainage system, installation of tubewells, encouraging use of pumping sets, avoiding accumulation of salts by proper culturable practices, study of subsoil etc., are discussed, with which, the State authorities generally agree. The cost of drainage system in Gohad and Mehgaon Tehsils is expected to be 10 lakhs of rupees.

Levelling of land, in many places, in order to ensure maximum advantage from irrigation and to prevent the evils of uneven irrigation, seems indispensable. The total area in each of the State requiring levelling is estimated at 15 to 20 per cent or about lakh or lakh-and-a-half acres in each State—the total provision made being Rs. 30 lakhs for Rajasthan and Rs. 46 lakhs for Madhya Pradesh during three years recoverable from cultivators in five yearly instalments. Four alternative methods of attending to this work have been discussed.

Wild ber bush infesting the land in most area coming under Chambal Valley Project in both States is a serious pest. Its removal can easily increase the yield by 2 to 3 mds. of foodgrain per acre on an average for the State. Various methods of attending to this evil are discussed.

Kankar layers appearing at depths of two feet to four feet below surface soil, and also hard pan appearing in many places, require immediate experimentation.

Other matters requiring urgent attention are determination of varieties of crops, best suited under irrigation cultural practices, time of sowing, seed-rate etc. under

altered conditions, manurial requirements under canal system, irrigation requirements of various crops and such other problems. Upon the proper solution of these questions will depend not only the yield of crops but also financial returns to the Government on this Project. In fact, this work should have been started several years ago. Lack of preparedness can be attributed to the manner in which the States came into existence, as a result of merger of small Princely States which could hardly be expected to do any great deal of research work for want of funds. The States will have to stage double march in order to catch up with other States, not only because these two States are the biggest in India, next to Bombay, but also because there are numerous problems to be tackled, and that also, in the shortest possible time. No doubt, the new research stations are being established, staff being appointed and laboratories being fitted but unfortunately the specialists in various branches are being scattered all over the State in order to satisfy the political claims of capitals of erstwhile Princely States. This is not in the lasting interest of the State agriculture.

Horticulture Industry has immense potentialities and can bring about revolutionary change in the agricultural economy of the two States. Although the area under fruits in both the States, at present, is very small, yet the presence of good number of fruit trees of many kinds—mangoes, citrus and papayas etc.—flourishing in many places and bearing bumper crop of good quality, indicates vast possibilities. For the development of horticulture, the gardens of erstwhile Rulers, containing trees of high quality, can play great part by supplying budwood to the Agriculture Department for mass scale production of nursery plants of pedigree stock for supply to public at 'no profit no loss basis'. The scheme in this connection has also been prepared for both the States.

Sugar Industry: Area under sugarcane in both the States, at present, is very small but fertile soil, good climate free from frost, plentiful supply of canal water, point to immense scope for sugar industry. Most desirable course will be to create "Sugarcane Belts" to concentrate cane cultivation in suitable areas. This will not only lead to high yield of cane but also high recovery of sugar as two factors responsible for low recovery of sugar are (a) the time lag between the time of cutting of cane and its crushing in the factory, and (b) proper degree of maturity of cane at crushing time, and both these factors can be fully controlled if cane cultivation is concentrated in certain areas. In size, Rajasthan and Madhya Pradesh are even bigger than U.P. which has nearly 30 lakhs of acres under sugarcane and 68 sugar mills. Even a quarter of this area and 15 mills can contribute immensely to the prosperity of the two States and their agriculturists.

Storing farm-yard manure in pits, composting of

town refuse and green manuring fields to maintain the fertility of soil, will have to be encouraged by necessary propaganda or legislation. Green manuring practices would receive impetus if green manure crops are exempted from irrigation rates as done in the Punjab. The State authorities agree to take necessary steps in this direction. In the interest of dairy industry, irrigation rates on green fodder crops like berseem could be reduced.

Consolidation of holdings would help in the better and more profitable utilisation of canal water and in fixation of *warabandi*. The State authorities agree to give priority to Chambal area for this work.

Village tanks, formerly used for storage of irrigation water, and to prevent erosion, are now going out of use and their utility in future to serve as fish tanks or for production of crops like Saugara or as an insurance against periodic closure of canal for short periods, requires consideration.

In canal-irrigated areas residential houses of farmers have got to be, as near the fields as possible, otherwise canal irrigation has little meaning. Accordingly new villages with new houses are bound to spring up. The West Punjab (now Pakistan) had a happy experience of preparing village sites and house plans for cultivators, simultaneously with the construction of canals. Likewise new sites for mandis (markets) were also thought out. Several old towns like Sheopur (Madhya Pradesh) are growing rapidly but in a most haphazard manner. This evil can be prevented right now and proper plans prepared with warehousing facilities etc.

With the onset of Monsoon, most of the roads in the proposed canal area, both in Rajasthan and Madhya Pradesh, get out of order, and villages remain completely cut off during Monsoon for months at a time. Here again, the happy experience of the Punjab in constructing pucca roads, almost simultaneously with canal construction, could be cited which immensely helped in opening up and developing the new area leading to the prosperity of the people.

The unfortunate practice, already prevalent in several places in Madhya Pradesh like Harsia Dam Canal area, is for the cultivator to take any amount of water at any time and for any length of period with the result that lands at the head of the minor get excess water resulting in water logging and those at the tail-end, die for want of water, besides embittering relations between the farmers. This evil must be checked from the very start in Chambal area by following *warabandi* system as prevalent in the Punjab and even in Bikaner area of Rajasthan. The Chief Engineer, Madhya Pradesh, has sent his Superintending Engineer to the Punjab to study *warabandi* system there.

Construction and maintenance of the main field channels are now the responsibility of the village but it

would be better for the Department to undertake this responsibility (construction only) or at any rate, provide technical guidance.

Malaria Problem: It is likely to become more serious as spleen percentage is already said to be very high.

In order to utilise the services of retired persons for the development of fruit industry and enable them to lead a useful and productive life in the rural area, it will be desirable to start cooperative garden colony scheme on the lines adopted in the Punjab.

There is said to be a considerable area of culturable waste land in both the States, which requires to be reclaimed. The States may lease out these areas to progressive enterprising agriculturists for sufficiently long period or (b) start cooperative farm on these areas to see to what extent, even under favourable conditions, cooperative farming can be a success.

Soil Erosion: This is a most serious problem in both the States. In Rajasthan no less than 30 per cent of the total culturable area has already been devastated by soil erosion—gullies, ravines, rills and even sheet erosion. Since the problem of soil erosion is not directly concerned with Chambal Valley Project, the subject is proposed to be separately discussed, except that sheet erosion (although imperceptible to an untrained eye) goes on continuously washing away fertile soil from land that appear almost level or only slightly sloping; and this evil is likely to be accentuated with the advent of canal system. It will be the duty of Irrigation and Agriculture Departments to popularise agricultural practices like contour cultivation, strip cropping, terracing, levelling, proper crop rotation, bunding, etc.

Estimates of expenditure for three years both recurring and non-recurring on various schemes proposed, aggregates to Rs. 59.3 lakhs for Rajasthan and Rs. 57 lakhs for Madhya Pradesh including the amounts recoverable from cultivators.

Incentive for Development: Some of the land to be brought under irrigation needs considerable improvement by way of clearance of ber bushes and levelling of steep slopes and ravines, requiring time and capital. In the interest of expediting development of irrigation, it is recommended that relative bigger holdings may be entrusted to private enterprise and ceiling of ownership of land may not be applied for a period of say 25 years. With persistent effort on all hands the period of development may be reduced to five years instead of 10 provided in the Project report.

Betterment Levy: In view of the increasing value of lands consequent upon availability of irrigation facilities the necessity of betterment levy is beyond any doubt. The main principle to be followed should be that the betterment levy may be half of the estimated increase in the value of land as a result of the benefits of irrigation. It is learnt that necessary legislation in this regard is

under consideration of Madhya Pradesh and Rajasthan Government.

Power Generation

Owing to the present financial difficulties in the country, the load growth in the Chambal region will not be as rapid (increasing five-fold in five years) as it was forecast earlier. Hence it is suggested that foreign exchange expenditure on Rana Pratap Sagar Power Plant may be postponed but the civil works should be started in the Second Plan period. The works could be accelerated if any unforeseen development of new loads does come about earlier than now considered probable.

The proposed transmission system lay-out may be modified slightly so as to inter-connect with the Chambal grid the recently installed thermal power plants and those under erection presently, contributing an effective capacity of 34,000 kw.

At the Gandhi Sagar Power Station, the fifth generating unit for which the penstock pipe has already been provided in the dam, may be installed. With this installation and in conjunction with the thermal plants, it is possible to meet a system demand upto 1,20,000 kw. The addition of the fifth unit not only serves to meet the load demand in the interim period till additional hydro-capacity is commissioned in the region, but also provides spare generating capacity for all the three hydro-stations, namely, Gandhi Sagar, Rana Pratap Sagar and Kotah in the ultimate stage.

By the integrated operation of the Gandhi Sagar Station with the new thermal plants, more thermal generation than now may be necessary but it is possible to minimise it. To begin with, irrigation would not have fully developed. Also, in the early stages of load development, the system load factor will be lower than 60 per cent and it may be possible to meet the entire load demand by operating five units at Gandhi Sagar Power Station only. As the system load grows and load factor improves, thermal support could be brought in gradually. Prior to full irrigation development, keeping the reservoir full (R.L. 1312) at the end of the Monsoon on October 1, and by drawing down the reservoir to as low a level as possible by the end of June and building it up during the Monsoon, it is possible to generate maximum hydro energy. In a good year, there will be no need for thermal generation at all except for about an hour or so per day to meet the peak demand. In years of average or low rainfall it would be necessary to supplement the hydro energy by thermal generation. It is expected that the average coal consumption per annum may not exceed what it would be, say in 1958.

Another advantage of the integrated operation would be the improvement in the performance of the unusually extensive (about 1,000 miles) transmission net-work associated with this Project which has an ultimate hydro

potential of about 2,00,000 kw in the three hydro stations. Normally in a well-developed region this quantum of power would be absorbed in a distance of about 200 miles. It is suggested that the performance of the proposed transmission system may be studied on the Network Analyser at the Indian Institute of Science, Bangalore. Based on the results of this study, the design and the lay-out of the transmission system may be suitably modified.

With a view to economise in the use of steel, the possibility of utilising wood-poles or concrete poles for transmission lines of 66 kw and below may be examined.

The major handicap for the speedy execution of the electrical works appears to be the shortage of technical personnel. It is suggested that the C.W.&P.C. may consider sparing for this Project some officers who, being familiar with the designs, could be of help to accelerate executions in the field.

For deriving early and maximum benefits from the sale of power that will be developed by the Chambal Project in successive stages of its construction, it is essential that the State Electricity Boards of Madhya Pradesh and Rajasthan should cooperate very closely and plan on the full utilisation of the hydro power as it becomes available, based on short term power sales understandings between the two Electricity Boards. Power should be utilised fully by whichever administration ready to do so and the programme should not be impeded by a literal interpretation of the Agreement that the power available should be shared equally between Madhya Pradesh and Rajasthan. Power may be made available for all consumers who can make effective use of it irrespective of where they are whether in Madhya Pradesh or in Rajasthan. Such a load-building programme will keep the total power generating facilities fully loaded all the time and will facilitate early and profitable construction of the Rana Pratap Sagar Power Station and other Power Stations down below.

Works Needing Urgent Attention

The progress on transmission lines both in Madhya Pradesh and Rajasthan is almost negligible. Special attention is necessary both as regards procurement of materials and erection so as to obtain the benefits of

power soon after the power plant is ready for operation in 1959.

The Kotah Barrage including erection of gates has to be completed by 1959. Up till now progress on earthen dam portion of the barrage is practically nil. In order to complete the same by June 1959, very special efforts and care are necessary in providing the filters, clay grouting of foundation, and placing of bleeder wells. A very careful schedule is considered imperative in view of the necessity to complete all the foundation works before the commencement of coming Monsoon, and the entire earth work, during the next working season before the Monsoon of 1959.

The radial gates on the spillway are required to be fabricated and erected in position before the irrigation season of 1959 commences. Already some delay has taken place due to non-availability of steel in time. The Control Board should arrange for necessary agency to watch the progress of all the works at various stages and schedules attained.

Progress on all the cross drainage works on canals have to be specifically watched so that they are completed before the irrigation commences in their respective zones. The numerous railway crossings need specially attended to as they are to be constructed by railway authorities.

Field channels and water-courses need to be completed before the irrigation starts in respective zones.

Cost of Project

Total development of the scheme with all three dams, power houses and transmission lines, Kotah Barrage and canals system was originally estimated to cost Rs. 77 crores. Out of this, the Gandhi Sagar Dam and its power houses, transmission lines, Kotah Barrage and the canal system intended to be completed up to the end of Second Five-Year Plan originally estimated to cost Rs. 48.03 crores are now revised to Rs. 63.59 crores, in view of rising costs and increase in quantities etc.

The expenditure upto date is Rs. 14.62 crores.

The Team has proposed economies amounting to a crore of rupees, by way of (a) dovetailing construction of Rana Pratap Sagar Dam with that of Gandhi Sagar Dam, (b) accelerating canal construction, and (c) lining canals with lime concrete instead of cement concrete etc.

LIBRARY COMMITTEE TO ADVISE THE U.G.C. ABOUT DEVELOPMENT OF LIBRARIES AND THEIR ORGANISATION, 1957—REPORT

(Report on University and College Libraries and the Proceedings of the Seminar on "From Publisher to Reader" held on March 4-7, 1959)

New Delhi, University Grants Commission, 1965. 228p.

Chairman : Dr. S.R. Ranganathan,
Members : Shri S. Bashir-uddin; Shri K.S. Hingwe;
 Shri B.S. Kesavan; Shri S. Parthasarathy.
Member-Secretary : Dr. P.J. Philip.

APPOINTMENT

The Chairman, University Grants Commission, appointed this Committee in 1957 to advise the Commission on matters relating to the proper functioning and management of libraries.

TERMS OF REFERENCE

- (i) To advise the Commission on matters relating to the proper functioning and management of libraries;
- (ii) To advise on various problems connected with provision of grant to libraries, book purchase, development of reading habit and help to students in the use of libraries, documentation work and service to research workers, departmental libraries, library personnel and their functions, classification, status, salary scale and strength; and
- (iii) To advise on standards for the design of library buildings and fittings and furniture.

CONTENTS

Foreword by Dr. D. S. Kothari; Introduction; Report of the Library Committee: Utilisation of UGC Grant; Library Finance; Book Selection and Book Purchase; Promotion of Reading Habit; Weeding out, Wear and Tear and Loss; Documentation; Departmental Collection; Library Personnel; Strength of Library Staff; Training of Library Personnel; Library Building, Fittings and Furniture; Standard for Library Building; Standard for Fittings and Furniture; Summary of Chief Recommendations; Proceedings of the Seminar; "From Publisher to Reader": Address of Welcome by Samuel Mathai; Inaugural Address by C.D. Deshmukh; Presidential Address by S.R. Ranganathan; Address of Thanks by P.J. Philip; Working Paper for the Seminar by S.R. Ranganathan; Findings of the Seminar: Address by K.D. Metcalf; Concluding Address by S.R. Ranganathan; Remarks by P.J. Philip; Index.

RECOMMENDATIONS

UGC Grant

A period of 17 months should be allowed for the proper utilisation of the UGC grant for reading and kindred materials, to facilitate book-selection and book-purchase along useful and economic lines without disturbing the weekly rhythm of the administration work of the library and the normal reference and circulation service to readers.

A library may be allowed to spend upto one-fifth of the Commission's grant for reading and kindred materials on the staff required to select and complete the purchase of the materials and to complete the technical work and the processing necessary to bring them into active use.

Commission's grant to a university library should be determined according to an agreed per capita formula.

Subject to local variation, the capacity of the university to spend, and the amount at the disposal of the Commission, for grant for reading and kindred materials, Rs. 15 per capita on the basis of students registered in the university and Rs. 200 per teacher may be given as grant to a university library for the time being. These figures should be revised periodically in the light of the changes in the cost of books and periodicals.

In the case of an affiliating university the number of students and teachers to be counted should be determined in the light of local conditions.

In the case of a newly started university, which is not more than five years old, an additional grant upto a sum of Rs. 300,000 may be given to build up the initial stock of reading materials, such as periodical publications, reference books, and advanced treatises.

These universities may be given permission to spend this amount within a period of three years.

Whenever schemes for the development of Postgraduate Departments are accepted by the Commission some assistance should be given for the purchase of reading and kindred materials and bringing them into active use.

The entire library finance of a university or a college library should be provided by the Commission and the State Government.

The Commission and the State Government should decide from time to time the proportion in which their respective grants to a university or a college library should be determined.

The Commission and the State Government should have an agreed understanding between them that each will actually pay its own share of the library grant.

The Commission should not ordinarily withdraw or lower its grant to a university or a college library because the State Government fails to provide the corresponding matching grant.

The library grant in any year should be based on the statistical data of the preceding year.

Library Fund

The library fund of a university or a college should be maintained and operated as a separate library account.

To make the spending of book-fund useful and to avoid its being dissipated on the rush-purchase of any materials readily available in the nearby market, the unappropriated amount of the budget should not be lost to the library, but should be carried forward to the credit of the library and be available for inclusion in the budget of the next year, as an addition to the normal allotment. Our chief book market is now thousands of miles away. Scholarly treatises, research materials, and particularly back volumes of learned periodicals take a long time in searching and procuring. Therefore, this provision for the revival of unspent balance in the next year's budget is quite essential.

Each library should—

Spread the utilisation of the grant received from the Commission for reading and kindred materials as uniformly as possible over the entire period of 17 months allowed for purchase;

Avoid hastening to spend the grant somehow on the purchase of whatever is available for immediate delivery without fully satisfying itself about the actual or anticipated demand of the reading materials purchased;

Complete all the administrative and technical work on the reading materials and release them for use by readers as expeditiously as possible, say, within less than one month of their receipt in the library;

Allocate the total book fund equitably over all the disciplines pursued by the parent body, subject to the availability of worthwhile reading and kindred materials in the different disciplines and the special extraordinary needs, if any, of particular disciplines;

Avoid duplication of learned periodicals and reference books;

Minimise duplication of advanced treatises;

Purchase a reasonable number of copies of books of the text book standard; and

Distribute the share of the total book-fund of each discipline, equitably on current learned periodicals, their

back-volumes, reference books, advanced treatises, and text-books.

It is desirable and economical for the selection of current learned periodicals and their back volumes to be coordinated among the libraries of a locality or a region, so as to minimise duplication and maximise the number of distinct periodicals available in the region, in order that the book-fund of each institution may go the longest way.

Without prejudice to the recurring local needs of students and research workers in different subjects, the libraries of a locality or a region should by mutual agreement specialise in stated subjects and make their collection in them as complete as possible for the requirements of research and invoke the aid of inter-library loan for books in frequent demand in subjects in which they do not specialise.

To prevent any prejudice to the reader's requirements being caused by the co-ordination of selection and purchase mentioned in Sec. 24 and 25, the libraries should co-operate with one another in inter-library loan and, whenever warranted, in exchange of reading materials so that they are housed where they are in greatest demand.

The Commission may frame a set of Rules for Inter-Library Loan and commend them to the University Libraries.

To facilitate inter-library loan and co-ordination of selection, the UGC should promote the production and maintenance of a union catalogue of the learned periodicals and the books in foreign languages other than English and rare books necessary for research in the humanities and the social sciences along the lines in which the Insdco is doing for the natural sciences.

Book Selection And Book Purchase

The acquisition of reading materials for the libraries should be regulated as follows:

The authority concerned may lay down the policy according to which book-selection should be regulated.

The authority concerned may make the allocation of the amount for the purchase of reading materials as indicated in Sec. 23, items four and eight.

The proportion implied in the allocation should normally be continued for at least three years without undue disturbance unless there are unexpected special factors coming into play. The proportion may be reviewed and re-established periodically, say once in three years.

The authority concerned should provide a panel of experts in different subjects to help the librarian in making the final selection of reading and kindred materials.

It should be regarded as improper to call for tenders or competitive quotations for each order.

Standing vendors may be appointed with stipulated

terms including discount and exchange rate for a year or a longer period with a clause in the agreement that if orders are not filled within a prescribed period the librarian will be free to place orders with others. In this, special weight should be given to advanced books and treatises.

Within the limits of the policy laid down, and in conformity to the advice of the experts concerned, and without exceeding the sanctioned budget and allocation, the librarian should be entrusted with the responsibility of book-selection and the question of reading and kindred materials.

The authority concerned may exercise the power of review to satisfy itself that the acquisition of reading and kindred materials was being done without infringement of the policy and the limitations of the budget and the allocation, and for watching for factors needing amendment in the policy and in the allocation of the fund.

To minimise the harmful effect of the practices in vogue in the choice of ad hoc or standing vendors for the supply of books, such as

1. Leading to failure of prompt supply of nascent books;

2. By-passing of the supply of advanced books and treatises in limited demand, of difficult-to-get-at kinds and without an attractive trade discount; and

3. Resulting in the ultimate lapse of budget allotment for books or for its diversion at the last minute to less important books because of their being available on the spot.

It is necessary to rationalise the vendor-library relation as it is now only in a formative stage.

To facilitate this and reach an agreed standard, such as netbook agreement, which will not either stifle the development of a healthy book trade or vitiate the proper utilisation of the book-fund of the libraries, it would be desirable for the Commission to bring about a conference consisting of a few representatives of publishers, booksellers, the library profession, the top-management of universities, and if feasible, representatives of Statutory Library Authorities in areas in which a Library Act is in force.

In view of the increasing cost of foreign books, it is desirable for the Commission to promote publication of cheap Indian editions of foreign books in wide demand in the universities and colleges or their import in sheets and being bound in India.

To minimise the effect of the

1. Present exchange difficulties;

2. Import licence difficulties; and

3. Frustrating delay caused by these two factors in the procurement of foreign reading materials.

It is desirable for the Commission—

Either

1. To arrange through a suitable agency for pooling together the orders of the different libraries for foreign reference books and advanced treatises of too limited a demand to warrant cheap Indian edition or Indian binding;

2. Their purchase in bulk; and

3. Their distribution to the libraries and debiting of their cost against the grant due to the respective libraries.

Or

To give part of the grant in the form of foreign exchange licence or coupons.

If the first alternative is followed, to minimise the danger of cooperative or centralised purchase resulting in the curtailment of the freedom of libraries in book-selection, the Commission may adopt special methods such as the following:

1. Appoint an Expert Committee for each subject to make a book selection list of reference books and advanced treatises, likely to be needed by many universities and colleges;

2. Circulate these lists to the libraries of the universities and bigger colleges for their respective selection; and

3. Consolidate the returns on these lists for bulk purchase.

Such lists in the different subjects may go out at different times. They may also be promoted by the libraries corresponding among themselves. This device may be given up as soon as the current difficult situation in respect of foreign exchange and import licence disappears.

Promotion Of Reading Habit

The most potent method of developing in the students a book-sense and the desire to own, enjoy, and read worthwhile books is the adoption of a teaching technique which minimises telling facts or giving ready-made opinion but rouses curiosity in the students by posing the pros and cons of a problem, and encouraging the students to seek from books and periodicals the information and the knowledge necessary to satisfy the curiosity and generally inspire the students to seek enjoyment in reading good books.

Safeguarded open access and provision of ample reference service should be provided by each university and college library.

Suitable arrangements may be made by the Commission to prepare and distribute periodically anticipatory reading lists of current and best books in diverse subjects of general interest to the students. Each library should also prepare its own reading lists from time to time on topics of local demand.

Reading circles may be formed on various topics from time to time and they may be given facilities to meet in the library.

Reference librarians should be appointed in sufficient number to help the students with sympathy and understanding in the selection of reading materials.

Each university or college, as the case may be, should encourage the formation of book-shops within its campus through co-operative effort or in any other manner.

Weeding Out And Loss Of Books

The following principles should be adopted by a library for weeding out books:

1. Generally speaking, pedestrian books (for example, text-books and other books without permanent value) may be weeded out once in five years.

2. Books worn out by use beyond repair may be weeded out once in a year.

3. Reference books, which are quite out-of-date and whose later editions are available in the market, may be weeded out once in five years or 10 years according to their nature.

4. A list of the books to be weeded out may be sent to the State Central Library, or its equivalent which should be given the choice to take over such copies as are found necessary to have within the State at least one tolerably sound representative copy.

While rare, costly, and small-size reading materials should be kept safely without direct access to readers and issued out only on formal application, in the case of the other books housed in the open access regions of the library, loss of two volumes for every one thousand volumes issued out is a risk worth taking for getting the books widely used before they go outmoded in thought-content or perish physically; and such a loss should be normally written off by library authorities, unless there is evidence of malpractice on the part of the staff.

Documentation

To save the time of the research workers, the library should—

Make documentation lists on demand as well as in anticipation to supplement the Insdoc list;

Make, on demand from research workers, abstracts of articles in current issues of periodicals not covered by the issues of abstracting serials received in the library;

Procure documents not in the library by inter-library loan;

Procure photostat or microfilm copies of other regraph of documents on demand from research workers;

Arrange, on demand, translations of articles in foreign languages through the Insdoc or other agencies; and

Employ documentalists in adequate number.

The following policy may, for the time being, be adopted by the Commission in respect of the regraph of documents and the reading apparatus needed for them.

In view of the fact that facilities for micro-filming,

photostating, and duplicating exist in Delhi, Bombay and Bangalore, the following universities, situated in the regions noted against them and having rich collections of periodicals and manuscripts, may be provided with microfilming, photostating, and duplicating equipment:

Eastern India	Calcutta
Western India	Poona
Southern India	Madras
Central India	Hyderabad
Northern India	Lucknow or Banaras

It is desirable to consult the Insdoc, which has experience in this field, for suggesting suitable equipment.

To begin with, one reading apparatus may be useful in each university library.

The demand for a second apparatus should be properly established by statistics and frequency of use, before an application for its supply can be entertained.

Departmental Collection

A post-graduate department of a university may be allowed a permanent loan of up to a maximum of 2,000 volumes that are expected to be frequently needed for the research in progress in the department.

This does not apply to the books whose duplication has been made especially for the use of the Department.

The volumes on permanent loan may be kept in the department for an indefinite period. As and when the needs of the department change, the volumes no longer required in the permanent loan collection may be returned to the Central Library and new volumes taken in their place.

The volumes in the permanent loan collection are subject to recall by the librarian at his discretion in case they are wanted for other readers or for technical purposes.

Besides the permanent loan, each department may be given a temporary loan of upto 100 volumes, returnable only in the last week of the term or the year as may be prescribed.

Copies of text-books, if any, supplied to teachers for teaching purposes should be independent of loan of every kind and should be treated on a par with the material equipments furnished to a teacher.

Current issues of periodicals should be kept on display in the periodicals room of the Central Library for one or two weeks to give a chance for everybody to use them and be released for loan to research workers only after that period.

It is not economical to build independent departmental libraries, unless a department is far away from the campus. It will unnecessarily add to the load of responsibility of the head of the department. Even in the case of a department having its own library for reasons of distance or other reasons, all impersonal work

such as book-purchase, classification, cataloguing, and binding of books should be left to the care of the Central Library.

Library Staff

The professional staff of a university library should be distributed into four grades with designations, qualifications, and scales of salary corresponding to those of professors, readers, lecturers, and assistant lecturers as

follows:

Designation, Qualification, Salary Scale

The following structure of the library staff, their functional designation, their professional status, their qualifications, their grades in a university library, and the corresponding scales of salary for each grade, are recommended. The salary scale should be changed to coincide with that of the teaching staff, wherever the latter is changed.

Sl. No.	Designation	Professional Status	Qualifications		Grade	Scale of Pay
			Minimum	Desirable		
1	Librarian	Professional senior	M. Lib. Sc. II class or M.Sc. II class and Dip. Lib. Sc. or B. Lib. Sc. I class; A prescribed minimum experience in a research or a university library	Doctorate in Library Science or any other subject	1	800-50-1250 (Professor's)
2	Document	-do-	-do-	-do-	2	500-25-800
3	Deputy or Assistant Librarian	-do-	-do-	-do-	-do-	(Reader's) -do-
4	Reference Librarian	-do-	-do-	-do-	-do-	-do-
5	Chief Classifier	-do-	-do-	-do-	-do-	-do-
6	Chief Cataloguer	-do-	-do-	-do-	-do-	-do-
7	Maintenance Librarian	Professional Junior	Dip. Lib. Sc. or B. Lib. Sc. I class and B.A. or B.Sc. or B.Com. II class		3	250-20-500 (Lecturer's)
8	Assistant Classifier	-do-	-do-		-do-	-do-
9	Assistant Cataloguer	-do-	-do-		-do-	-do-
10	Accession Librarian	-do-	-do-		-do-	-do-
11	Periodicals Librarian	-do-	-do-		-do-	-do-
12	Circulation Librarian	-do-	-do-		-do-	-do-
13	Senior Library Assistant in any Section but not the Reference Sec.	Professional Assistant	-do-	-do-	4	150-10-250 (Assistant Lecturer's)
14	Junior Library Assistant in any Section but not the Reference Sec.	Semi-Professional	Cer. Lib. Sc. and good Higher Secondary Certificate		5	80-5-150-10-220

There should also be semi-professionals to do the repetitive routine connected with technical work, besides the usual ministerial staff.

The professional staff of a college should have the qualifications and the salary scale given above.

The system of appointing a non-professional person, such as a professor, as honorary librarian as the head of a library should be abolished.

The strength of the staff of a library should be determined on the basis of the load of work in accordance with the staff-formula whose substance is given below:

The strength of the staff for the different sections is to be determined roughly on the following basis.

1. Book Section: One person for every 6,000 volumes added in a year.

2. Periodical Publications Sections: One person for every 500 current periodicals taken.

3. Documentation Section: One person for every 1,000 entries prepared in a year.

4. Technical Section: One person for every 2,000 volumes added in a year.

5. Reference Section: One person for every 50 readers (other than the users of the text-book collection) in a day.

6. Circulation Section: One person for every 1,500 hours for which one wicket gate of the library has to be kept open in a year.

7. Maintenance Section: One person for every 6,000 volumes added in a year, one person for every 500 volumes to be replaced in a day, and one person for every 100,000 volumes in the library.

8. Administrative Section: Minimum of one library accountant, one steno-typist and one correspondence clerk.

9. Supervisory Section: One librarian and one Assistant or Deputy Librarian.

10. Unskilled staff: One cleaner for every 30,000 volumes in the library, one attendant each for every 6,000 volumes added in a year, for every 500 current periodicals taken, and for each of the shifts in the Circulation Section, besides unskilled and the semi-skilled workers normal to any institution.

The salary fund of the university and college libraries should be subsidised by the Commission so as to promote the implementation of the recommendations contained in the beginning of this chapter.

Department Of Library Science

A first grade Department of Library Science may

conduct courses for B. Lib. Sc. and M. Lib. Sc. and a second grade one only for B. Lib. Sc. ordinarily. A university Department of Library Science should not conduct certificate courses for semi-professionals. This should be left to the care of the Departments of Libraries and the Library Associations in the Constituent States.

A first grade Department of Library Science should have one professor, one reader, two lecturers, and two demonstrators, and a second grade one should have one reader, one lecturer, and one demonstrator.

For the time being the Commission may help the maintenance of full-time teachers in not more than six Second Grade Departments of Library Science distributed on a regional basis and not more than two First Grade Departments.

During the next ten years, the Commission's help may have to be gradually extended so as to secure one Second Grade Department of Library Science in each constituent State.

The librarian and his staff should devote their full time to the work of the library and should not be burdened with part-time teaching work; nor should the teachers in the Department of Library Science be burdened with the work of the library.

Course Of Studies In Library Science

Only a graduate should be admitted to the B. Lib. Sc. course.

A person should be allowed to join the B. Lib. Sc. course only after the satisfactory completion of an apprentice course of six months in a library approved for the purpose.

A Committee of Experts should be appointed by the Commission to examine the question of improving and coordinating the standard of teaching and research in the Departments of Library Science of the universities and to give advice on the course of studies, standards, and teaching.

Library Buildings, Fittings, And Furniture

The standards for the Library Buildings, Fittings and Furniture, established by the Indian Standards Institution and extracted in chapters N and O, should be followed by all the university and college libraries.

Any proposal, for a new library buildings, fittings, and furniture, or for the adaptation of an existing building, or for its extension for library purposes, should be examined and approved by a Library Expert appointed by the Commission.

SELECTED BUILDINGS PROJECTS TEAM ON MULTISTOREYED BUILDINGS, 1957—REPORT

New Delhi, Committee on Plan Projects, 1958. 88p., Plates.

Leader : Shri S.K. Patil.
Members : Sardar Sarup Singh; Dr. A. Carbone;
Shri C.P. Malik.
Secretary : Shri T.S. Vedagiri.

APPOINTMENT

The Selected Buildings Projects Team on Multistoreyed Buildings was constituted under Planning Commission in 1957.

TERMS OF REFERENCE

To help in the efficient and economic implementation of the Projects included in the Plan.

CONTENTS

Introduction; Space Utilisation and General Planning; Structure and Materials; Programming and Planning of Site Operations; Administrative and Contract Problems; Summary of Recommendations; Remarks by the Selected Buildings Projects Team; Appendices I to VII; Plates.

RECOMMENDATIONS

Space Utilisation

It is desirable to orientate a building so as to avoid exposure of the occupied rooms to Eastern and Western Sun.

The lettable office space or carpet area should be of the order of 65 to 75 per cent of the total built up area.

Clients' requirements should be ascertained in detail before undertaking planning of the building.

Storage space must be properly planned.

An area of 500 sq. ft. is considered adequate for Committee Room required to serve an office with carpet area of one lakh sq. ft.

The requirements of canteen should be assessed in each case separately and suitable provision made for the same.

Scales for sanitary units fixed by ISI should be enforced.

Space requirements of specialised services should be determined at the planning stage.

Eight feet width for corridor is adequate to meet all normal office requirements.

It is economical to construct independent light structures for garages and cycle sheds provided sufficient land is available.

A height of 11 feet from floor to floor is considered adequate.

In view of the scarcity of teak wood and its rising prices, it should be advantageous to specify flush doors for office buildings where superior finish is required.

Light installation should be capable of transporting the whole population to the second and higher floors within 20 to 45 minutes.

It is essential to decide the question of airconditioning at the planning stage as subsequent alterations are costly and cause inconvenience.

A scientific study of the effect of shading window openings with louvers of various shapes and materials should be undertaken by the CBRI.

Structure And Materials

A cavity wall appears to be the best proposition for external cladding.

The type of frame with a central corridor of eight feet and rooms 14 to 16 feet deep on one side and 25 to 30 feet deep on the other side and with a spacing of 12 feet is considered economical.

There is need for setting up permanent centres at important places in the country for exhibiting building materials and advanced techniques of construction.

Tested and untested variety of steel must be stocked separately and tested steel should be used for important projects like multi-storeyed buildings.

It is advantageous to use richer mix for members which are predominantly in compression. Normal mix of 1:2:4 can be adopted for members subject to flexural stresses.

The adoption of limited tendering is recommended to obtain quality concrete.

Where foundation problems are complicated, expert on foundation engineering should be consulted and alternative foundation designs worked out.

All construction agencies should supply data of the break-up of cost to the N.B.O. for consolidation and publication.

Programming and Planning Of Site Operations

All working drawings to eighth scale should be made available with all information necessary for the completion of the building, right at the commencement of construction.

A few building sites should be selected at random and the operations as they exist should be carefully studied from the inception of work to its completion in order to

evaluate the wastage in materials, manpower and money due to lack of planning and organisation.

Administrative And Contract Problems

Building work should not be started without finalising all the architectural and service details, on the basis of firm requirements of the user department and making arrangement for materials. It should also be ensured

structural details are made available to the contractor, well in advance.

The adoption of three to five year approved programme with priorities is recommended.

The method of letting out a work complete with all services to a general contractor may be tried in a few cases and the results watched for future guidance.

CUSTOMS REORGANISATION COMMITTEE, 1957-58—REPORT

New Delhi, Manager of Publications, 1959. 374p.+iiip.

Chairman : Shri F.C. Badhwar.

Members : Shri S.M. Shah; Shri E.J. Benjamin; Shri W. Saldanha.

Secretary : Shri V.S. Ramaswamy.

APPOINTMENT

The Customs Reorganisation Committee was appointed by the Government of India, in the Ministry of Finance, by Resolution No. 4/10/55-Cus. III, dated January 23, 1957, the terms of which are as follows:

The procedures, for the clearance of goods and passengers, baggage at present followed by the Custom Houses in India have grown into their present form over many years during which rapid changes have taken place in the practices adopted in international trade and commerce. Although these procedures have been under constant review by the Collectors of Customs as well as by the Central Board of Revenue, basically they are still the same as those followed over three-quarters of a century ago. Both the Government of India as well as the commercial public have, therefore, felt the need, particularly in recent years, for a detailed investigation of the content and operation of these procedures so as to achieve the requisite degree of modernisation, especially in respect of speed and efficiency. An examination would simultaneously be necessary of the connected questions of adequacy and level of efficiency of the organisation and staff of the Custom Houses. The Government of India have accordingly decided to appoint a Committee to conduct a comprehensive enquiry into customs procedures and organisation and to make recommendations for their improvement.

TERMS OF REFERENCE

(1) To examine in detail the procedure:

(a) for the clearance of goods and passengers' baggage through the customs at the sea ports, airports and land customs stations;

(b) for the administration of Import, Export and Exchange Control Regulations;

(c) for ensuring uniformity of classification of goods and methods of valuation;

(d) for the grant of Customs refunds and drawbacks; and

(e) other matters of Customs procedure generally;

(2) To examine the liaison between the Customs on the one hand and the trade, the Port Trust/Commissioners, the Import and Export Trade Control authorities, and the Posts and Telegraph Department, on the other;

(3) In the light of examination made under items (1) and (2) above, and having regard to the safety of Government revenue, the adequate enforcement of prohibitions and restrictions, and the legitimate interest of the trade and of passengers, to recommend the modifications required in the various procedures for making them more effective, simple and speedier;

(4) To examine the administration of the existing Customs Department as a whole with reference to the adequacy and disposition of staff provided at various levels, their working conditions, the exercise and delegation of responsibility and methods of recruitment and training;

(5) In the light of the examination referred to in item (4) above, to recommend necessary improvements; and

(6) To make any other recommendations germane to the objective of the investigation.

CONTENTS

Part I: Introductory; Brief Historical Survey; The Committee's Approach; Tariff Structure; Implementation of Import Trade Control; Valuation for Assessment to Import Duties; Assessment of Mixed Goods; Processing of Bills of Entry; Examination of Cargo; Analytical Tests; Detention of Goods; Bonds and Guarantees; Bonded Warehousing; Foreign Post Parcels; Government Stores; Exports; Drawback; Entrepot Trade;

Changes in Import and Export Duties; Short and Excess Levies of Customs Duties; Tourists and other Passengers; Penal Proceedings; Steamcr Agents; Air Traffic; Problems of Airlines; Custom House Agents; Customs Advisory Bodics; Public Relations and Information Scrvices; Other Important Problems; Organisation; Summary of Main Recommendations; Part II: Introductory; Processing of Bills of Entry; Examination of Cargo; Bonded Warehousing; Foreign Post Parcels; Exports; Transhipment; Precious, Semi-Precious and Synthetic Stones; Jewellery; Imports and Exports; Tourists and other Passengers; Steamcr Agents; Problems of the Airlines; Air Freight; Short-Landing; Receipts and Payments; Certain Problems at Minor Ports; Other Problems; Customs Advisory Committees at Ports and Central Customs Advisory Council; Part III: Work done by Customs for other Departments of the Government of India and the State Governments; List of Advance Rccommendations sent to the Government of India; Copies of the Advance Rccommendations sent to the Government of India; Memorandum dated March 4, 1957 issued to Chambers of Commerce and Trade Associations in India; List of Chambers of Commerce and Trade Associations in India to whom the Mcmorandum dated March 4, 1957 was Issued; List of Chambers of Commerce, Trade Associations, Firms and Individuals who replied to the Mcmorandum, dated March 4, 1957; Questionnaire dated May 31, 1957 issued to the Public; List of Chambers of Commerce, Trade Associations, Firms and Individuals to whom the Public Questionnaire was issued; List of Chambers of Commerce and Trade Associations who replied to the Public Questionnaire; List of Firms and Individuals who replied to the Public Questionnaire; List of Officers, Individuals, Chambers of Commerce, Trade Associations, etc. interviewed by the Committee; Departmental Qucstionnaire sent to the Collectors of Customs; Memorandum, dated March 11, 1957 issued to Ministries of the Government of India and State Governments; List of the Ministries and Departments of the Government of India to whom the Memorandum, dated March 11, 1957 was Issued; List of the Ministries and Departments of the Government of India who replied to the Memorandum dated March 11, 1957; List of the State Governments to whom the Memorandum, dated March 11, 1957 was issued; List of the State Government Departments who replied to the Memorandum, dated March 11, 1957; List of the Ministries and Departments of the Government of India who replied to the Public Questionnaire, List of the State Government Dcpartments who replied to the Public Questionnaire; Memorandum, dated March 11, 1957 issued to Diplomatic Missions and U.N. Agencies in India through the Ministry of External Affairs; List of Diplomatic Missions and U.N. Agencies who replied to the Memorandum, dated March 11, 1957; List of Subjects

on which facts were obtained from Cncntral Board of Rvenuc, Collectors of Customs or Central Excise or the Chief Controller of Imports.

RECOMMENDATIONS

Tariff Structure

As a first practical step towards the revision of the Tariff Schedule, footnotes to it, which are of a reasonably permanent character, should bc incorporated in the schedule, and anomalies in rates of duty for similar catgories of goods should be removed.

The Customs Tariff should be thoroughly revised by aligning it closely with the Import Trade Control Licensing Schedule and such alignment should be continuously maintained.

The "Indian Customs Tariff Guide" should be amplified, brought up-to-date, and published at intervals of not more than six months.

"The Indian Customs Tariff Guide" should be replaced as soon as possible by an amplified edition of the "Alphabetical Index to the Standard Indian Trade Classification", showing against each item the corresponding tariff item. Explanatory notes should be appended in respect of items of doubtful classification. The amplified "Index" should be issued with the approval of the Central Board of Revenue. The correlations in the Index should bc kept under constant review.

Cross-references to the Tariff should be inserted in the Import Trade Control Licensing Schedule, to assist in classification for import trade control purposes.

Implementation Of Import Trade Control

The Trade Control authorities should post an officer, preferably of the rank of Deputy Chief Controller, in each major Custom House to help resolve quickly any differences in interpretation of licences, and generally to act as a liaison between the Trade, the Customs and the Joint Chief Controller of Imports.

A list of cases of disputed licences should be sent daily to the Joint Chief Controller of Imports who should convey his advice to the Customs by the following day. Joint meetings of the Customs and Import Trade Control authorities should be convened, if necessary, at a fixed hour and venue, to discuss such cases, and the importer should have the right to ask for a reference to, and personal hearing at, such meetings.

The description on the Licence should be as specific as possible. In the case of items falling under general descriptions, the major items intended to be imported should be specified on the licence, together, where necessary, with a residuary description. Publicity should be given to the availability of the facility of amendment of licence descriptions by the licensing authorities for inclusion of specific articles.

C.I.F. values only should be debited in all cases of

enhanced valuation. Values as enhanced for assessment to duty should be debited only in cases of deliberate under-valuations, or where special relationships exist between supplier and importer.

Valuation For Assessment To Import Duties

Section 30 of the Sea Customs Act should be amended to make the C.I.F. value the sole basis of *ad valorem* assessments.

Detailed and clear instructions should be published regarding the method of valuation under section 30(b), in cases of special relationship between seller and buyer; the possibility of fixing tariff values for raw materials and semi-manufactured goods in such cases should be examined.

Tariff values should be fixed for as large a range of commodities as possible; constant surveys and reviews of imported commodities should be undertaken for this purpose.

Assessment Of Mixed Goods

Each item in a composite set should be assessed separately. Where the value of a single component is over 75 per cent, the entire set should be assessed at the rate applicable to that component.

Processing Of Bills Of Entry

Some positive action should be taken on each bill of entry in the appraising department within two to three hours of its first presentation, and it should receive prompt attention at each stage thereafter.

"Second appraisement" should be the rule and the Principal Appraiser's approval be obtained before resorting to "First appraisement".

Appraisers should sort out bills of entry at least twice a day to fix their priority for attention.

The specific documents that must be initially attached to bills of entry should be widely publicised. Any other documents, if required, should be called for at one time. No second demand for such papers should be permitted without the Principal Appraiser's approval.

Even if a bill of entry contains items pertaining to different groups, it should be disposed of in the group responsible for the article carrying the highest value.

All pre-clearance processes, except pre-audit and registration of licences, should be completed in the dealing group itself, its ministerial strength being suitably increased for the purpose, if required.

As a temporary relief measure, part of the work in an over-loaded group should be farmed out to suitable appraisers working outside it.

Appraisers should be available to the public throughout the hours fixed for interviews. In the event of an extended discussion over a certain case, the Principal Appraiser should make special arrangements for the

disposal, without delay, of other bills of entry in his group.

Any fee or fine leviable for the amendment of a bill of entry should be collected simultaneously with the customs duty.

The instructions that all Appraisers should be up-to-date in the maintenance of their references and records should be continually enforced by periodical checks by supervisory officers.

The cent per cent "double check" of Customs documents should be reduced to 10 to 20 per cent both in respect of the Principal Appraiser's and the Docks Supervising Appraiser's checks. The limit of Rs. 100, in duty, in respect of an Appraiser's powers to pass a bill of entry without the Principal Appraiser's verification, should be raised to Rs. 500.

To speed up work, the Principal Appraiser should be delegated the authority to finalise many of the routine cases which only Assistant Collectors are empowered to decide at present.

To ensure efficient operation, Assistant Collectors should pay frequent visits to Appraising groups.

Where the Import General Manifest cannot be submitted in advance of a vessel's arrival, which happens frequently when the port of origin of a vessel's run is close to India, bills of entry should be accepted by the Appraising department, under orders of the Collector, for scrutiny and completion, leaving "noting" by the Import department to a later stage.

Examination Of Cargo

An examination centre, with a supervising Appraiser should be provided at each of the large and normally busy sheds. Otherwise, where sheds are close together, one examination centre, fully staffed, should cover two or three sheds; isolated sheds should each have one centre, supervised by a mobile appraiser.

Supervising officers should ensure that the busier centres are reinforced quickly by reserves of staff from less busy centres.

Day-time working hours and lunch intervals at the examination centres should be the same for Port Trust and Customs staff at each port. Where uniformity is not practicable, Customs working hours should be 8 A.M. to 6 P.M. at these centres.

All examination centres should be self-sufficient in equipment required for examination and weighments and should be provided with furniture, fans and such other amenities for both the public and the Customs staff.

Where a specified package is not readily available for examination, the discretion already vested in the examining staff should be liberally exercised, to examine an alternate package, or to allow part clearance.

The Port Trust authorities should ensure that

cargo is methodically stacked to avoid delays in Customs examination and clearance.

Goods of standard quality, and imported regularly, should be enabled to be cleared quickly by adopting a reduced scale of examination, weighment or other checks.

Analytical Tests

Existing arrangements for Customs sampling and testing should be brought up, without delay, to international standards.

Where there are inadequate facilities with Customs for the testing of certain articles, analysis reports of recognised Indian or foreign agencies should be accepted.

Test procedures should be framed with due regard to trade interests, and urgent steps should be taken to remove existing deficiencies in Customs of qualified staff and equipment for sampling and testing of ores and other bulk commodities.

Private or public bonded warehouses should be provided for storing export cargo before sampling and testing.

Modern systems, like the card-index, should be introduced in each appraising group for maintenance of, and quick references to, test records. The Custom House laboratories should also maintain their own card-index references, so that any unnecessary requisition for test can be rejected.

Detailed analytical data recorded by the Customs laboratory should be made available to parties, and test results of established brands of goods should be treated as valid for a longer period than at present. The period of validity of goods of reputable makers should be at least twelve months, and clearance/shipment allowed on production of a certified copy of a previous and valid test.

When adopting test standards, the utmost consideration should be given to a free and uninterrupted flow of legitimate trade.

When disputes arise on test results, chemists representing each party should be afforded an opportunity to discuss the technical points involved. Samples should, at the option of, and on payment of a fee by the party be permitted to be re-tested by a recognised independent agency whose findings should be accepted. The bill of entry or shipping bill should be endorsed to the effect that a re-test would be admissible.

In dealing with appeals against Customs tests, the existing procedure of consultations with recognised expert agencies other than the Chief Chemist, Central Revenues, should be more liberally adopted on request by the appellant.

Detention Of Goods

In all cases of dispute, subject only to a few exceptions, as for example, where a deliberate fraud has been

committed, only such portions of a consignment as are essential to safeguard the interests of the revenue or any regulatory provisions as may be involved, should be detained.

When delays in Customs clearance are due to factors outside the control of the owner, the Port Trust should remit demurrage charges in all cases on production of Customs detention certificates. Only an Assistant Collector should issue detention certificates in cases other than those in which the Port Trust accept such certificates at present.

As an alternative, the Customs should provide a departmental "detained goods warehouse" at each port for the safe storage of goods detained by them. Since it may not be possible for the Customs at major ports to undertake the custody of goods, such warehouse should be maintained for Customs by the Port Trust or some other responsible public body.

There should be the maximum possible uniformity in the calculating of the "free days" and rates for demurrage at the different ports.

Bonds And Guarantees

Bonds should generally be accepted without insisting on the surety from only a bank. When a bank's surety is indispensable, the amount of the guarantee should not exceed 20 per cent of the amount of the bond. Witnessing of signatures of executants, by clearing agents, or under a bank's seal, should be accepted.

Bankers' guarantees should be cancelled within 30 days of the fulfilment of the terms of the bond.

Personal appearance before customs officers for the signing of bonds and guarantees should not be insisted upon.

Continuing bonds should be accepted from established concerns to cover recurring types of import and export transactions.

Forms for bonds intended to cover recurring types of cases, should be prescribed by the Central Board of Revenue, and published in the "Indian Sea Customs Manual".

The financial liability to be covered by the bond should be calculated as precisely as possible and the amount shown in the text of the bond; an amount equal to the value of the goods should not be fixed as a matter of routine.

The period of validity of a bond or a guarantee should be fixed at between six and twelve months in most routine cases.

Bonded Warehousing

Private bonded warehouses should be licensed within the municipal limits of a major port, as for example, to regular importers of industrial raw materials or other bulk commodities.

Bonded warehousing facilities should be provided at Land Customs Stations.

Provision should be made in airport development plans for Customs bonded warehousing accommodation, and meanwhile the possibility of providing such accommodation in hangers or sheds should be explored.

A public bonded warehouse is preferable to a number of small private ones, at each major airport; special provision should also be made for bonding cold storage and hazardous goods at such airports.

Bonded warehouse facilities with trained Customs staff in attendance, should be extended, wherever justified, to inland trade centres for goods sent in bond from Indian customs ports or stations.

Bonded goods should be permitted to be dealt with under the "second appraisal" system.

Relaxations already allowed by executive orders in connection with Section 94 of the Sea Customs Act, for amending declarations on bond bills of entry, after warehousing has been completed, should be freely extended in deserving cases, and these relaxations should be embodied in the Act itself.

Continuing bonds should be accepted from established and regular importers for their warehousing operations.

Foreign Post Parcels

On parcels imported by post, no duty should be levied (i) where the duty does not amount to more than Rs. 10/-, whatever the value of the parcel, or (ii) where the value does not exceed Rs. 25/- (exclusively of postal charges), whatever the duty. The officer-in-charge should also have discretionary powers to waive duty charges and licence requirements in the case of certain used or other articles imported on bona fide personal account in excess of the prescribed exemption limits.

Additional Foreign Post Offices should be established at places where the headquarters of Collectors of Central Excise are situated.

Rules and regulations concerning Foreign Post Offices should be widely publicised in newspapers, and through appropriate brochures issued by the Postal Department.

Government Stores

The regulation regarding submission to Customs, of shipping and other documents, at the time of importation, which is rigidly applied in the case of the private sector, should apply with equal force to Government organisations.

If the existing "Note and Pass" facility of submission of documents after clearance is to continue, it should be confined to stores imported for the sole use of Government's non-commercial departments; there is no justification for its extension to Government's industrial and commercial undertakings or public corporations.

Where the "Note and Pass" system is permitted, a

provisional debit for duty should be raised on the basis of available particulars. If the required documents are not furnished by the importing department within three months, the provisional debit should be confirmed. No relaxation of the time-limits under Sections 39 and 40 of Sea Customs Act for recovery of short-levies or refund of excess levies, should be permitted.

Much time and effort would be saved if the stores imported only for consumption in Government's non-commercial departments are exempted from payment of Custom duty.

Exports

An Export Trade Control Unit, to deal with shipping bills for controlled goods, should be housed in each Custom House.

Shipping bills should be passed by the ministerial section or by the appraising unit, according to nature and/or value of goods, as is done at Bombay Customs House.

The existing facilities available on holidays for urgent Customs clearance of goods for export should be extended to Sundays and "closed" holidays also. Wide publicity should be given to these facilities, which should be made available at the minor ports also. Skeleton staff should be provided in all sections where it may be necessary.

Preventive Officers supervising ships which are loading should be called upon to assist in examining export cargo. Preventive Officers should be trained for this work.

The scale of examination, and other checks, of export cargo, should be reviewed periodically to ensure that they are not excessive and burdensome.

Formalities in connection with boat notes should be minimised, and handled only by experienced Customs staff.

The price at which export goods have been sold to purchasers abroad may differ from the value as established under Section 30 of Sea Customs Act. Clear instructions should be issued on this aspect of export valuation. Specific duties or tariff valuations should replace *ad valorem* export duties, wherever possible. Wherever *ad valorem* duty is unavoidable, the F.O.B. price, as contracted under open market conditions, should be accepted.

The abolition of export duties, with a view to earning more foreign exchange, would remove many procedural problems and delays.

Drawback; Entrepot Trade

Drawback of the full Customs duty recovered on import should be allowed in cases of re-export of commercial goods and personal articles in original condition.

Free replacements, under a warranty, of defective

articles, which have been re-exported without drawback, should be exempted from duty.

An extension of the existing time-limit of three years, for re-export of imported goods under drawback, is not necessary.

Admissibility of drawback should be determined much in advance of actual export, if desired by an intending shipper. The Assistant Collector's routine approval in each case of shipment under a drawback claim, should not be necessary. The drawback shipping bill itself should be treated as a claim, and claims should be audited only after payment.

Drawback claims should be settled within three months.

The possibility should be explored, of reducing the period of six months now fixed for determining the rate of drawback on aviation spirit supplied to aircraft. Provision should also be made for these supplies to be made from bonded stock, maintained at the airports. Where this is not possible the drawback procedure should be simplified.

Drawback or bond facilities should be extended to goods imported by sea or air and re-exported by land, and vice-versa.

Creation of "free zones" at port premises, for manufacture of goods for re-export should be considered.

Changes In Import And Export Duties

The existing practice of applying changes in rates of duty, or tariff values, on and from the date of announcement, should continue.

The rate of duty applicable to warehoused goods should be the rate in force on the day the duty on the goods has actually been paid.

Short And Excess Levies Of Customs Duties

Notices of demand for payment of short-levies should be as clear and precise as possible regarding the amounts to be paid and the basis of calculation. When the assessment is qualified as provisional, the reasons for not accepting the declared value should be given.

When demands are issued pending investigation, the Assistant Collector in charge of the Special Investigation Branch should satisfy himself regarding the justification for questioning import invoices and take various measures to ensure that no delay or inconvenience occur in finalising disposal of such cases. Special branches for this purpose should be set-up in Custom Houses, where they do not exist and are justified.

A time limit of six months should be fixed for the final disposal of such cases. On the expiry of this period, the Collector should give his decision on the material available on the file.

In all other types of cases of short-levy demands, the final demand should issue within a period of six months.

The Bombay pattern of the Appraising groups dealing with "current" refund claims, and a special and separate unit dealing with "arrears" should be adopted at the Custom Houses. Care should be taken to ensure that no new refund claims remain undecided beyond a limit of six months, and add to the "arrears". The groups dealing with "current" refund claims should also attend to relevant correspondence.

Tourists And Other Passengers

The Customs procedures governing articles of high value, carried by tourists, should be simplified in consultation with the Tourist Promotion authorities.

Where free allowances are specified by value, the limits should be replaced, subject to certain specified exceptions, by numbers or measures or weights. A list of articles ordinarily carried as personal effects by passengers should be drawn up for this purpose, and all other articles in the bona fide use of passengers, and brought in reasonable numbers, should also be exempted from duty.

The Customs staff required to work at airports should either be housed near their duty posts or transport should be supplied for them to meet all calls of duty. The supervising officers on baggage duty should be sufficiently experienced and adequately empowered to take decisions on the spot. When necessary, appraising staff should also be detailed for the clearance of baggage.

Suitable physical arrangements should be made for both passengers and Customs staff at the baggage examination centres.

The intensity and scales of examination of deck passengers' baggage, should be the same as those of saloon passengers.

Unaccompanied baggage should be cleared under Baggage Declaration Forms with the assistance, when necessary, of appraising staff.

If offending articles are found in a package in a passenger's baggage, these articles only should be detained, and not the entire package, unless the passenger is held to have attempted a deliberate act of smuggling.

The routine body search of passengers wherever it is still carried out, should be discontinued forthwith. When a body search is deemed necessary, it should be entrusted to a responsible and considerate officer.

Customs staff detailed for duty at points of entry and exit of passengers, should be selected with care and be well-trained. The existing system of paying rewards to staff for the detections of irregularities in the course of routine searches, should be abolished.

Penal Proceedings

Penal action should not be taken in the case of bona fide mistakes, or where identical goods have been cleared previously without objection, or where goods have been shipped contrary to importer's instructions.

The Principal Appraiser and, in cases of baggage, the Chief Inspector or Senior Preventive Officer, should have authority to issue "show cause" memos, without the previous approval of the Assistant Collector. Where the "accused" is willing to forego the "show cause" procedure, summary adjudication should be arranged.

Several measures are necessary to speed up the adjudication of penal proceedings; the main among them being the delegation of penal powers to the Principal Appraiser to adjudicate routine cases.

Orders imposing penalties, whether original or appellate, should state clearly the grounds on which decisions are based.

The right of "accused" parties to be heard and represented by legal or other expert advisers should be statutorily recognised. In urgent cases, personal hearings should be arranged on holidays.

There should be a separate Appeal Section, in each Custom House, to handle all appeals; no reference to the original adjudicating officer should be permitted.

The tribunal suggested by the Taxation Enquiry Commission for hearing revision petitions should be set up with the addition of a suitable representative of the trade as a third member.

There are serious delays in the passing of appellate and revisionary orders, which, it is understood, Government are taking steps to remedy.

Personal penalties imposed by "original" decisions, should not be enforced during the pendency of appeals.

Recourse to seizures of trade goods should be made (under Section 178-A of the Sea Customs Act) only when an Assistant Collector is fully satisfied of the grounds for suspicion. A time limit of three months should be fixed for the Collector to dispose of the cases of such seizures, and a similar time limit should also be observed by the Central Board of Revenue in deciding appeals in these cases.

Steamer Agents

Staff and launch facilities should be sufficient at the major ports for officers to board vessels within an hour of arrival. A special officer or officers should make a daily round of vessels in the harbour for the issue of stores for use on board.

An adequate number of launches should be provided for Customs staff, at the larger of the minor ports, to carry out boarding duties of vessels in stream at least twice a day.

The practice of recovering "overtime" fees from steamer agents for Customs supervision provided for the working of ships on Sundays and public holidays, should be abolished.

Steamer agents should be compelled by law to submit Import General Manifests in advance of arrival of ships except where ports of origin are situated not

beyond the Middle East and the East Coast of Africa on one side, and the Malayan Peninsula on the other. A scale of time limits for this purpose for foreign ports or geographical regions, depending upon distances from Indian ports, and the availability of airmail services, should be introduced.

The present practice of extending the time limit of 24 hours for coastal shipping to submit import manifests should be given statutory sanction.

There should be uniformity at all ports, based on the Bombay and Cochin practices, in the levy of fees for supplementary manifests.

The maximum penalty of Rs. 500/- authorised under Section 167(17) of the Sea Customs Act, should not be imposed as a matter of routine when manifested goods are not properly accounted for by steamer agents; normally, unless the bona fides of the agents of the steamer company are in doubt, the penalty should not exceed the actual duty involved.

The time limit of five days for filing the Export General Manifest, prescribed in Section 66 of the Sea Customs Act, should be raised to seven days.

Duty should not be recovered on the entire stores of a vessel when it undertakes a temporary coastal run; it should be limited, by the adoption of the necessary procedure, to the quantity necessary, and issued, for such run.

Air Traffic: Problems Of Airlines

It is not necessary, nor would it be useful, in the wider interests of the trade, to have self-contained Customs Units at the international airports in India, at the present stage of development of these airports.

Bonded facilities at the airports should be extended and since airline spares and stores are imported and kept in bond purely as a temporary measure, and are not intended for internal consumption, detailed assessment of them is unnecessary and should not be insisted upon.

Airline spares or stores should not be removed to the Custom House, but should be attended to at the airport itself by the airport Preventive Staff, or, where necessary, by Appraisers. If the volume of work justifies it, Appraisers should be posted permanently at the airport. Airlines should also be allowed to pay duty, or other charges, at the airport at their option.

All Customs formalities in connection with the arrival or departure of an aircraft should be completed at the airport itself, and no overtime fees should be charged except for service provided during transit stops of aircraft.

In the case of aircrafts stopping in transit, Customs documentation should be reduced to a simple application from the Airlines, who should be bound by suitable guarantees for the observance of the indispensable Customs documentary formalities, after departure of the

aircraft. Customs supervision should not be made a condition for permitting supplies of engine parts, or essential operating equipment, to waiting aircraft.

Custom House Agents

No major modifications appear necessary in the terms governing the examination for Custom House Agents or their employees as specified in the Rules made under Section 202 of the Sea Customs Act.

The problem of "Muccadams" at Bombay could be met by their merging with "Dalals" to form partnership concerns, and by limiting the examination in their case to actual clearance or shipment processes, which are directly handled by them. Modifying the Rules to provide for a special "Muccadam's licence", valid only for the Customs operations which he is now conducting, should also be considered.

In implementing the Rule requiring a knowledge of Hindi, the case of areas where Hindi is not generally spoken should be taken care of.

Unless his complicity, or positive negligence, is proved, a Custom House Agent should not be held liable for any short, or non-levied, or erroneously refunded duty, after the goods have been cleared from Customs.

The condition prescribed in the Rules for the production of letters of employment by six parties, should not apply except at the time of renewal of an existing licence. At the time of renewal, not merely the numbers but also the volume of the business of clients should be the test of the full employment of an Agent.

Generally, the arrangement proposed in the Rules is designed to secure the requisite, and uniform, standard for Custom House Agents, and adequately provides for both large and small concerns to be employed in this capacity.

Customs Advisory Bodies

A Customs Advisory Council should be set up at the Centre; the existing Customs Advisory Committees at the major ports should be reorganised.

The membership of the local Committees and the Central Council should be limited to about a dozen and two dozen respectively. The ratio of non-officials to officials in each should not be less than 2:1, and special weightage should be given to those who come into close and constant contact with Customs operations. Secretaries of Ministries concerned with Trade Control and Port Trust operations should try to attend the meetings of the Council. The Directorate of Inspection, Customs and Central Excises, should be associated with the meetings of the Committees as well as the Council.

The functions assigned to the Committees and the Council should serve to provide a cross-section of objective public opinion on Customs operations.

The agenda of the local Committee meetings should be framed by inviting suggestions, and including matters on which the Collector thinks the Committee's advice would be useful. The proceedings of the meetings of the bodies should be followed up in a systematic manner both locally and by the Central Board of Revenue. Similar action is necessary in connection with the meetings of the Council.

The Committee should meet normally each month, and the Council once in six months, alternately at Delhi and at a major Port.

Advisory Committees should also be set up for the minor ports and the important Land Customs Stations.

Public Relations And Information Services

Whenever tariff changes take place, the Customs should issue a circular, within 24 hours, containing the old and the new rates of duty in respect of each item affected, for easy reference by the public.

The "Indian Sea Customs Manual" should be published every two years as statutorily prescribed, and consolidated correction lists to it issued at half-yearly intervals.

Many of the rulings and instructions which now appear in the "departmental" manuals, and which are of concern to the public should be made available in the published manuals.

Local Custom House standing orders should also be made available to the public in the form of quarterly publications.

There should be a separate section at the headquarters of the Central Board of Revenue, as well as at each Custom House, for issuing up-to-date and comprehensive manuals and correction slips at stated intervals. At a major Custom House this section should be attached to the Public Relations Office.

Any instructions from the Government or the Central Board of Revenue, which affect the trade, should be published in notice form within 24 hours. More larger and neater notice-boards, placed at suitable points, should inter alia indicate the sources from which copies of such orders would be available.

A section should be maintained at each Custom House for promptly issuing copies of notices and circulars to registered subscribers.

A reference library should be established at each Public Relations Office where publications, notices and circulars would be available for reference, and also on sale, to the public. A quarterly assessment of the public demand for these should be made so that adequate stocks are available throughout the year.

Information sections should be maintained at minor Custom Houses also, and signboards should indicate the location of such sections.

At major ports, the Public Relations Officer should

be an Assistant Collector promoted from the Principal Appraiser's rank. He may be used as a secretary to the local advisory committee, but this should not interfere with the normal duties he must perform as a Public Relations Officer. He should have atleast one senior Appraiser and sufficient clerical staff. His office should be suitably equipped with an up-to-date library of reference books and furnished on modern lines. An importer should be entitled to clearance of a first importation, without penalties, where full information has been supplied by him, to and recorded with the Public Relations Officer, and declarations have been made on the relative bill of entry in accordance with the advice given by that officer.

The Public Relations Officer should answer enquiries promptly, clearly and helpfully.

Advice on Trade Control matters leading to the issue of licences should be sought from the Trade Control organisation; necessary consultation between Customs and the Trade Control authorities should be completed, and an answer given, as quickly as possible.

In planning improvements in the Public Relations sections, expert publicity organisations should be consulted and the views expressed at Advisory Committee meetings considered.

The Public Relations Officer should act in such a manner as to remove the popular impression that Customs practices are slow and the formalities tedious, and are looked upon as indispensable.

Other Important Problems

A. Tariff And Trade Control Classifications

Classification of goods according to the tariff is not the importer's responsibility; where it has been indicated on the bill of entry by the importer in good faith, but is not accepted by the Customs, no penal action should be taken.

A clear directive should be given to the Customs and the Trade Control authorities to adhere to the normal criteria of composition and ordinary use, in classifying articles for assessment and trade control purposes.

The existing orders of Government that changes in established tariff and trade control classifications should not be made without Government's prior approval, should be rigidly enforced. A reasonable notice should be given to the trade when any such changes are authorised.

A Classification Committee of expert officers should be set up at the headquarters of the Central Board of Revenue with the Director of Inspection as Convener, for reaching quick and satisfactory decisions in cases of doubtful or disputed classifications.

There should be no rigidity of attitude in the classification of articles of "special design".

The Central Board of Revenue and the Chief Con-

troller of Imports should issue a directive to ensure that separate classification is not made, of machine parts and accessories which have no special design, and are imported in reasonable quantities along with the equipment for which they are intended

B. Valuation

The condition that a sole agent for any particular imported article must make 90 per cent of imports of such article on his own account, in order to secure the benefit of duty exemption in respect of his commission from the suppliers should be withdrawn.

The provisions in Sections 33, 34 and 34-A of the Sea Customs Act should be modified so as to allow consideration of claims on account of damage or deterioration without reference to the point of time at which the damage or deterioration took place.

C. Provisional Assessment

When a provisional assessment is made, and a deposit is taken as security, no bond should be necessary; similarly, when a bond is furnished, no deposit should be demanded. Care should be taken to see that the amount of the bond or the deposit demanded is not more than what is reasonable in any particular case. There should be a speedier and simpler procedure for cancellation of bonds and adjustment of deposits.

D. Temporary Imports

Additional facilities are necessary for the clearance and reshipment of equipment and apparatus, which are imported temporarily by organisations of standing.

Goods which are temporarily imported for display at Exhibitions, should not be subjected even to detailed assessment.

E. Reimported Goods

The law should be amended to sanction the existing executive practice of allowing refund of export duty or cess, when reimportation takes place.

The condition in Section 25 of the Sea Customs Act that there should be no change in the ownership of Indian goods, to enable them to duty-free reimportation should be withdrawn. Provision should also be made for the three-year time limit laid down in that section for such reimportation, to be extended by the Central Government in appropriate cases.

The existing concession which entitles scientific instruments and machinery of foreign manufacture, re-imported after repairs, to be charged to duty only on the repair costs, should be extended to all types of industrial goods of foreign manufacture.

F. Payments Of Duties And Other Charges

Cheques drawn on scheduled banks and endorsed as

"good for payment" on the day of payment, should be accepted. If considered necessary, a portion of the goods may be detained pending encashment of the cheque.

Debits to deposit accounts should not be made, when a demand for short-levied duty is served, without the prior consent of the account-holder.

The facility of paying minor charges through a system of Customs Revenue Stamps should be introduced in order to reduce the delay in making cash payments.

G. Liaison With Port Commissioners

In order that the necessary degree of liaison between the Customs and the Port Trust authorities may be fully secured, meetings between them should be held regularly at agreed intervals.

H. Goods Consigned To Diplomatic and U.N. Missions

In order to eliminate delays which occur in the delivery of freight and post parcels addressed to U.N. and Foreign Missions and their officers, certain measures are necessary.

U.N. specialised agencies and other recognised bodies importing goods entitled to exemption from duty under schemes approved by the Government of India, should be given the same facilities for clearance as are extended to non-commercial "Government Stores" at any particular time.

I. Air Freight

Special and entirely separate arrangements should be made for disposal of air freight bills of entry in the Cash and Accounts Department.

Six clear "free days" should be allowed for the clearance of air freight from the Customs godown, counting from the date of despatch to the consignee, of the intimation of arrival, by the Airline agents.

J. Miscellaneous

Customs facilities such as bonded warehousing and transhipment of goods, provided at the minor ports should keep in step with the needs of developing ports.

At each Custom House, panel of expert official and non-official advisers should be formed to advise on classification or valuation of specialised types of engineering or scientific goods.

In the case of refunds of duty relating to short-landed packages, six months should be allowed for the lodging of claims from the date of issue of short-landing certificates by the Port Trust.

Any tendency that exists to avoid reopening of assessments, where this has been permitted by Government, should be checked.

In the case of goods which are shipped by mistake, or have not been cleared by importers, and have, therefore, to be reshipped by banks or steamer agents, penalties

should not be imposed except after examination of the merits in each case.

Where emergency supplies are imported by a responsible organisation, clearance should be immediately given at the airport itself under orders of the nearest gazetted officer against an undertaking to observe all customs formalities later.

Organisation

Careful forward planning of the Customs set-up should be arranged and necessary facilities provided to cater for speedy clearance of increasing goods and passenger traffic on the scales visualised in approved development plans.

Some additional expenditure on expansions providing better service to the public and improving the working condition of the staff should be undertaken early. A part of this should be met by debiting the cost of agency services to the other Government departments on behalf of whom they are undertaken.

There should be adequate reserves, specially in the Appraising and Preventive departments to meet foreseeable emergencies.

Preventive officers should be trained and employed for examination of export cargo.

Officers with specialised knowledge of scientific and engineering equipment should be periodically recruited in adequate numbers. Such officers should also receive practical training in industrial establishments to enable them to keep up-to-date.

There should be a larger number of "all-rounders" among the Preventive, Examining and Appraising staff to deal with varying situations, specially at the smaller stations.

Training centres should be established for Examining, Appraising and Preventive staff and all new entrants should receive training here. Refresher courses should also be a feature of such centres. A senior officers' course should also be provided for.

Staff meetings with the collector and other supervising officers should be encouraged to improve performance.

Much larger staff, fully-trained in Customs work is necessary for inland Customs stations and the minor ports.

Reorganisations within the Appraiser's cadres and consequential adjustments are suggested to improve overall efficiency.

More facilities and conveniences, particularly in respect of residential accommodation and transport, should be provided.

Clerical work, connected with the Sea Customs or allied Acts, or technical noting and drafting, should be assigned to Upper Division Clerks. Office supervision should be increased to ensure better output and quality.

Modern systems for maintenance of records should

be introduced. Experts should be consulted to get the best results.

The usefulness of the Directorate of Inspection

should be developed.

Major aspects of Customs operations should be reviewed at 10-year intervals.

EXPORT PROMOTION COMMITTEE, 1957—REPORT

New Delhi, Ministry of Commerce and Industry, 1957. 200p.

Chairman : Shri V. L. D'Souza.

Members : Shri T. C. Kapur; Shri Karam Chand Thapar; Shri G. B. Kotak; Shri R. M. Gandhi; Shri Nazir Hussain; Shri P. Chentsal Rao.

Secretary : Shri R. Venkateswaran.

APPOINTMENT

The Government of India have had under examination for some time the measures to be taken for bridging the gap between the foreign exchange resources which now appear likely to be available and the resources actually required for the successful implementation of the Second Five-Year Plan. The Government are convinced that an effective contribution in this regard can be made by increasing exports. Accordingly they have been taking all possible measures for stimulating trade; but *ad hoc* export promotion measures are not adequate to secure the required increase in trade. The Government of India have, therefore, decided to set up a Committee vide Resolution No. 38-EP(1)/57, dated February 18, 1957, of the Ministry of Commerce and Consumer Industries to make a comprehensive study of all aspects of trade promotion.

TERMS OF REFERENCE

To make a comprehensive study of the question of promoting Indian Exports and to make recommendations to Government with particular reference to the following:

(1) The nature of fiscal or other concessions that could reasonably be granted for stimulating exports, and the procedure for giving this assistance;

(2) The nature and content of credit facilities for export trade and the manner in which these facilities should be provided;

(3) The lines on which special agencies such as Export Promotion Councils, Commodity Boards etc., should be developed to become effective instruments for export promotion;

(4) The assistance required for expeditious movement for export both by rail and sea;

(5) Simplification of commercial transactions by provision of facilities for:

(i) the settlement of trade disputes;

(ii) conduct of pre-shipment survey;

(iii) quality control for the maintenance of quality standards in export goods.

(6) Nature of propaganda to be conducted in foreign markets and the need for development of marketing agencies abroad;

(7) The adequacy of the service rendered at present by agencies like the Director-General of Commercial Intelligence and Statistics, the Trade Commissioners' Organisations etc., for promoting trade; and

(8) Any other matters relevant to the main object of export promotion.

CONTENTS

Letter of Transmittal; Introductory; India's Trade in the International Setting; Foreign Trade of India; Policy and Programme; India's Foreign Exchange Resources and Balance of Payments; Export Promotion: Aids and Incentives; Export Finance; Trade Agreements; Government and Export Promotion; Publicity and Commercial Information; Invisible Exports; Standardisation and Quality Control; Trade Disputes and Arbitration; Export Services Department; Commodities: A Survey; Summary of Recommendations; Statistics; Appendices A to C.

RECOMMENDATIONS

A detailed analysis of long-term trends in our export commodities should be undertaken.

The likely effects on our exports consequent on the formation of the European Common Market and the proposed European Free Trade Area should be discussed in the GATT with a view to obtaining such concessions and safeguards as will ensure that India's export trade is not materially affected.

We should diversify our exports as well as export markets.

Greater attention should be paid to develop services such as shipping, banking and insurance.

Our traders, manufacturers and industrialists should develop a measure of export consciousness and be prepared to organise themselves to launch a concerted drive for the promotion of exports.

The aim should be to step up exports to Rs. 700 to 750 crores a year from now on.

In the present circumstances devaluation of the rupee will not help export promotion.

The aim should be to increase agricultural output as much as possible. Further, increased production of vegetable oilseeds, especially groundnuts, should receive the most urgent attention of Government.

To help exports, the most modern methods of production should be allowed even on our present lines.

While fixing targets for industrial production, especially in the engineering field, provision should invariably be made for exports.

Over-heads such as administrative, managerial and organisational costs should be reduced to the barest minimum.

When raw-material availabilities are insufficient to work existing industrial units at two or three shifts, production should be concentrated on the more efficient ones and the uneconomic units closed down by mutual agreement among parties concerned.

Wages should be related to production and much greater attention should be devoted to increasing productivity.

The Railways should accord first priority of movement to export freight.

The grant of concessional railway freights to export commodities should be examined in detail on an urgent basis.

Existing restrictions on inter-State road transport should be removed and commercial vehicles licensing and taxation policies in the States should be modified.

Barring exceptional circumstances, the aim should be to keep the level of export duties fairly stable over given periods of time.

The Export Risks Insurance Corporation should be authorised to provide insurance cover to exporters in respect of changes in export duty.

A flat rate of refund of excise duty should be applicable to all manufacturers exporting using duty-paid raw materials, semi-processed goods and packing material.

Traders and stockists who buy goods in the open market and export should also benefit from refund of excise duty.

Refunds should be given on the Central Sales Tax as also in cases where the sales tax is levied as a surcharge on excise duty.

Exporters should be given a measure of relief from income-tax, such relief being related to their total business turnover, the total income-tax they have to pay and

the increase they have been able to effect in the export of non-quota items.

Relief from income-tax on a different basis should be granted to exporters of commodities which have not so far figured in our export list as also to new exporters.

Earnings by new foreign branches of Indian business houses should be exempted from income-tax during their period of consolidation, say three to five years.

Sections 42 and 43 of the Indian Income Tax Act should be liberally interpreted so that only in cases beyond doubt the exporter is made liable to pay income-tax on the assumed profits of foreign buyers.

Drawback of customs duty should be admissible not merely to goods manufactured in India out of imported materials, but also to imported goods processed, blended, sorted or packed in India.

The drawback system should be effectively simplified by granting refund of customs duties on a flat rate basis.

Five per cent of the increase in exports (by value) of a non-quota item effected by an exporter over his average performance during 1954-57 may be allocated to him for effecting such imports as he likes but allowed under the Import Trade Control policy in force from time to time.

Small quota-holders should be permitted to pool their quotas on mutually agreed terms with better-placed exporters of the same commodity.

It may be examined whether quota-holders cannot be allowed to pool their quotas in order to enable them to obtain higher prices abroad and to ensure that the overall quota set apart for export is actually shipped.

Against exports of better-priced Indian commodities for which there is a good demand abroad, imports of cheaper substitutes may be made.

Government should agree to make available the facilities of the Market Development Plan of the Export Risks Insurance Corporation to exporters on as wide a scale as possible.

Canalising of exports through a single agency, though a useful device, should be considered as an exceptional measure to be taken only in special circumstances.

Government should examine the feasibility of encouraging entrepot trade in India on a limited scale.

Government should actively assist the development of manufacture in bond for export purposes.

Government should encourage our traders to carry on external trading operations with such safeguards as may be necessary.

Trust receipts i.e. documents which exporters execute to obtain credit from banks should be capable of registration with the Registrar of Assurances and on violation of the provisions of such trust receipts, banks should be able rapidly to bring criminal charges against defaulters. The requisite legislation should be passed.

Commercial banks should be enabled increasingly to

rediscount bills through increased credits made available to them by the Reserve Bank. Such re-discounting should be at a rate materially below the bank rate and the benefit of the low rate should be passed on to exporters.

Small producers and exporters should form co-operatives for undertaking exports.

The State Bank of India should increasingly participate in the foreign trade of India.

There is no urgent necessity for the establishment of an Export-Import Bank in India.

Existing trade agreements should be renewed and new ones entered into as occasion demands.

Special payments arrangements of the type agreed to with Egypt may be concluded with countries with which India has a heavy deficit in trade.

Special arrangements within the broad framework of the general policy of non-discrimination and multilateralism should be entered into for promoting exports.

Under-developed countries should be allowed to give aids and incentives to their exports of manufactures.

Government should set up Export Promotion Councils for commodities not already covered.

It will be advantageous for the State Trading Corporation to associate private business with its activities. The Corporation should carry on its business like any other private firm and, consequently, should not, save in exceptional circumstances, receive any privileges or facilities not available to the private sector.

Our Foreign Service officers should, at some stage of their career, be given a period of training of at least six months in an export house or manufacturing establishment.

Procedures and administrative formalities of all kinds in respect of export transactions should be simplified to the extent possible.

Government should explain to the public the urgency and importance of export promotion through suitable publicity in the newspapers etc.

The export trade in India should devote particular attention to packaging.

Exporters should try to pool their export advertising and channel it through a single agency.

Export Promotion Councils, Commodity Boards, trade delegations, travelling salesmen and our overseas commercial establishments should undertake market surveys for Indian products abroad.

The Federation of Indian Chambers of Commerce and Industry should hold exhibitions similar to the Indian Industries Fair held in 1955-56 from time to time.

There is need for a comprehensive directory of importers and exporters in India. The compilation of such a document may be entrusted to a non-official organisation like the F.I.C.C.I. and the venture given every co-operation from Government.

An agency for furnishing status reports on Indian firms should be established in India in due course.

Government should bring out a weekly "Indian Journal of Foreign Commerce".

The Directorate of Commercial Intelligence and Statistics may be so reorganised that its commercial intelligence and related functions are transferred to the proposed Export Services Department in the Ministry of Commerce and Industry.

Foreign exchange should be allowed on a more liberal basis to exporters going abroad to conclude sales or for exploring export possibilities.

We should aim at carrying 50 per cent of our total overseas trade in our own ships within the next 10 years.

Government should encourage shipping corporations, both public and private, to acquire ships on a deferred payment basis.

A third ship-building yard should be planned immediately.

In addition to providing loans for acquisition of ships at low rates of interest, Government should consider the question of selective tax exemptions to shipping companies on amounts spent by them in the acquisition of additional tonnage.

In respect of transport of government imports and exports, Government should use their good offices in persuading conference lines to enable and assist Indian shipping companies to participate increasingly on fair and equal terms on all routes and also to make selective as well as general reductions in the freight rates on Indian commodities.

The possibility of negotiating a measure of relief from high freight rates on certain commodities with the foreign shipping lines concerned may be examined.

The handling capacity and operational efficiency of ports should be improved. The facilities available in ports such as warehouses, storage space for fluids, fumigation facilities etc. should be improved.

The proposal to develop a port at Geonkhali as a satellite to Calcutta should be actively pursued.

Indian firms should increasingly patronise Indian banks for export transactions and the latter should offer attractive terms and satisfactory service to Indian exporters.

The Reserve Bank of India should examine the question of granting loans and advances at low interest rates to banks desiring to open new branches in foreign countries.

Indian importers should increasingly entrust insurance cover for their imports with Indian insurance companies.

Accommodation facilities should be greatly increased in centres of tourist interest.

The Indian Airlines Corporation give facilities to tourists in regard to reservations and cancellation charges.

The Indian Railways should consider the question of giving concessions to tourists on the same scale as foreign railways.

Road transport facilities to tourists should be provided through well-appointed coaches, conducted bus tours etc.

Frontier formalities, police registration, income-tax clearance etc. should be simplified.

Publicity abroad to attract tourist traffic into India should be strengthened.

Grading certificates in respect of commodities already covered should be issued without delay and grading inspectors should have proper training and receive adequate emoluments.

Further grading schemes should be started first on a voluntary basis.

There should be a system of compulsory registration of all exporters.

Government should confer with the principal business associations with a view to investigating the possibility of setting up an all-India agency for pre-shipment

inspection and surveys.

The question of forming an Indian Arbitration Association should be studied by the Chambers and Associations presently providing arbitration facilities.

An Export Services Department should be set up in the Ministry of Commerce and Industry.

The head of this Department should be a person of high standing preferably one with wide business and administrative experience. If an officer already in Government is appointed to head it, he should be of the rank of Joint Secretary and also have experience of commercial matters and should not be subject to frequent transfers.

A Standing Committee of representatives of trade and industry should be set up to advise the Export Services Department on export promotion matters. The head of the Export Services Department should be its Chairman.

The Export Services Department should have field officers under Deputy Directors in Bombay, Calcutta and Madras to begin with.

INLAND WATER TRANSPORT COMMITTEE, 1957—REPORT.

New Delhi, Ministry of Transport and Communications, 1959. 139p.

Chairman : Shri B.K. Gokhale.

Members : Shri H.P. Mathrani; Shri U.N. Mahida; Shri D.V. Joglekar; Shri D. Mehta (replaced by Dr. K.L. Rao; Dr. Rao left the Committee in 1958 and replaced by Shri Yadava Mohan); Shri S.K. Mukerji; Shri J.B. Craig; Shri B.L. Jalan; Shri K.C. Chatterjee.

Secretary : Shri S.P. Sarathy.

APPOINTMENT

The Government of India have been considering ways and means of restoring Inland Water Transport to its rightful place since independence, and the Ministry of Transport convened an Inter-State Conference of the States in North East India shortly thereafter. The object of this conference was to devise and consider suitable measures to establish Inland Water Transport on a firm and economic footing in the region. In 1949 they collected from the State Governments information on various points connected with development of inland water-borne traffic, construction of craft, training of marine personnel, registered Companies operating inland water transport, and so on.

A Conference of the States of North-East India was again convened in April 1951, which resulted in the formation of the Ganga Brahmaputra Water Transport Board in 1952. Nevertheless, a real start was not made on an All India basis until the Study Group on Transport Planning set up in 1953, recommended that Inland Water Transport should be recognised and allotted its proper place in the Second Five-Year Plan, and in all future Plans. This recommendation was accepted, and an allocation of Rs. three crores was made in the Second Five-Year Plan for the development of Inland Water Transport.

Further in 1956, the Central Board of Transport recommended that the policy to be adopted in future should allow for the integration of Inland Water Transport in the national transport system of the country, and suggested that an enquiry on an "All India" basis should be undertaken with a view to examining the part played by Inland Water Transport, and to make recommendations for its future development. Accordingly, this Committee was set up under the Ministry of Transport (Transport Wing) Resolution No. 3-IWT (44)/56, dated February 18, 1957. The appointment of the Committee was warmly welcomed by the Estimates Committee of

the Lok Sabha in their Sixty-first Report of March 1957 on Inland Water Transport.

TERMS OF REFERENCE

- (i) To review the part played by Inland Water Transport in the transport system of the country;
- (ii) To advise on measures for the increased utilisation of Inland Water Transport including movement of bulk commodities to ports for purposes of export and movement of bulk commodities from the ports to the interior account being taken of what is already contemplated under the Second Five-Year Plan for the development of Inland Water Transport, and to give an estimate of
 - (a) the time needed for the execution of the schemes recommended, and
 - (b) their cost;
- (iii) To examine the prospects of increasing and extending the river and canal services, including a direct service on the East Coast as well as from some point in the North to the South and to suggest steps to be taken to achieve effective coordination between the railways and inland waterways including financial participation, appropriate allocation of traffic as between the two modes of transport and arrangements for through booking;
- (iv) To consider the organisation of an efficient country boat service on a co-operative basis with an appreciable increase in the present number with a view to facilitating the carriage of more goods and the question of mechanising at least some of the boats, with particular reference to cost, time and other implications.
- (v) To suggest whether any special organisation is necessary to execute the schemes and how they should be financed.
- (vi) To make recommendations regarding important waterways to be declared as "National Waterways" as envisaged in the Constitution.

CONTENTS

Appointment of the Committee—Terms of Reference—Visits and Discussions; Interim Recommendations; Inland Water Transport in Retrospect; Waterways of North-East India—Their Problems and Suggestions for Improvements; Waterways of the Rest of India—Their Problems and Suggestions for Improvements; Outline of Master Plan—Multipurpose Projects and Future Developments, Classification of Waterways; Country Boats and Ferries; Construction of I.W.T. Craft, Engines and Auxiliaries and Training of Personnel; Government Organisation for Development of Inland Water Transport; Replies to Terms of Reference; Conclusions and Acknowledgements; Appendices I to V.

RECOMMENDATIONS

In the past the river valleys were cradles of civilisa-

IN INDIA 1957

tions and waterways were the main means of communications.

The history of decline of inland water transport is not peculiar to India alone.

Inland water transport has now developed into a flourishing and vital mode of transport in Europe and America because of adequate measures for improvement of waterways adopted by the Governments of those countries and location of industries in close proximity thereto.

Inland water transport has an important role to play. It can supplement other modes of transport and is particularly suited for commodities in bulk.

The capital and maintenance cost compare very favourably with other modes of transport and it is possible to move a greater quantity of traffic between any two points within a specified time than by any other mode of transport provided the waterways are in good condition.

93 per cent of Assam's tea and 90% of her jute are transported by waterways. Assam is dependent on water transport to a large extent.

Aerial and hydrographic surveys of the main shoals of the Brahmaputra should be carried out.

The conservancy of waterways must no longer be the responsibility of any private operators but should be carried out by Government.

Draft restrictions, taking into consideration available depth over shoals should be enforced on the Brahmaputra to obviate any disruption of water borne traffic.

Terminal facilities in Assam are inadequate. Construction of an inland Port at Pandu should be proceeded with. Terminal facilities at Dhurbi on the Brahmaputra, and on the Kushiyara should be taken in hand in the next Plan. The foreshore at Gauhati should be raised and pitched and parking space for lorries should be provided. At Neamati and a number of Ghats light portable prefabricated aluminium transit sheds should be provided.

Afforestation measures in the catchment areas of the rivers of the Brahmaputra and Surma Valleys are essential.

Ship repair and docking facilities are necessary in Assam.

Hydrographic surveys of feeder rivers in Assam should be undertaken for developing feeder services.

Construction of a lock for craft from Longai river to enter Kushiyara river through Natiyal Khal should be investigated.

Liaison with I.W.T. Authority in East Pakistan should be established.

Early implementation of the Ganga Barrage Project is essential.

Hydrographic surveys of Sunderbans between Channel creek and Thakuran river should be carried out for

planning dredging operations to improve the steamer route.

The Damodar Valley Corporation Canal should be made toll free for a specific period to attract boating interests. This canal serves a highly industrial area where a transport bottleneck exists. Steps should, therefore, be taken to develop water transport on this canal.

The Hijli Tidal Canal should be better maintained in view of lack of other communications.

A suitable launch should be acquired for Customs and Police use at Beharikhali in Sunderbans to obviate undue detentions to I.W.T. craft. Similar facilities are necessary at Dhurbi on the Brahmaputra.

Improvements of terminal facilities on the Hooghly, provision of a non-tidal berth in the Docks and release of number three berth in the King George Dock for tea traffic, are essential in the Port of Calcutta. Possibility of development of a boat basin in Chitpur Canal, improvement of canal lock and lift bridge should be investigated.

There has been considerable decline in the activities of country boats on the Ganga due to altered trade conditions following partition and the levy of ghat charges by ferry contractors.

The responsibility for maintaining transport services on the Ganga and Ghagra lies with the State Governments. A country boat service with tugs to provide the haulage should be started so as to run rail-cum-river services between Calcutta and Upper India via Sakrigali Ghat or Rajmahal. Governments should divert adequate traffic for this service.

Industrialists should be encouraged to locate industries on the banks of the Ganga in suitable areas. Conservancy and river training measures should aim at improving the navigability of the Ganga and the Ghagra.

In the deltaic region of Orissa, inland water transport is the most important mode of transport. It is necessary to plan coordinated development of these waterways. The development of the Port of Paradip should also be planned simultaneously.

The High Level Canal Range I and the Kendrapara and the Taldanda Canals should be improved, and the Taldanda canal should be extended to Paradip Port. New locks should be constructed on the canals as the traffic develops on the bridges should have a head clearance of 16 ft. above high water level. Lining of the sides of the canal from three ft. above water level to three ft. below water level is necessary for powered craft to operate. The Mahanadi river from Dholepur to Cuttack should be improved on the basis of hydrographic surveys. There are excellent opportunities for location of industries in this area with adequate raw materials and power from Hirakud available.

The tolls at present charged over Orissa canals are excessive and should be reduced.

The Buckingham Canal suffers from limitations such as inadequate maintenance, lack of head room under the two Railway bridges in the Madras City area, lack of terminal facilities, inadequate road connection with important rail heads and towns, absence of regular tow-paths and difficulties in obtaining fresh water supplies. The cargo transported by this canal does not form part of the trade passing through the Port of Madras. It is not practicable to connect the canal to the Port. The canal should, however, be maintained for existing craft to operate fully loaded (three ft. draft) and facilities including warehouses with compound walls at important wharves, to avoid detentions to craft, should be provided.

The Vedaranyam Canal should be maintained for existing traffic. Beyond that there is no justification for major improvements or extension of this canal.

The Delta Canals of the Krishna and Godavari rivers play an important role in transporting iron ore to the minor ports of Masulipatnam and Kakinada. With the completion of the Krishna Barrage, additional water will be available in Masulipatnam and Ellore Canals. The requirement of water transport should be given adequate weightage in planning additional irrigation facilities. Lining of these two canals for powered craft should be taken up as traffic develops. Suitable locks should be constructed on Pulleru Canal to meet transport requirements.

Improvement of navigability of the Krishna and Godavari rivers should be planned after detailed investigations to facilitate transport of lime kankar to cement factories in Vijayawada and iron ore to Kakinada.

In Kerala, there are a number of industries situated close to the waterways, which use this mode of transport. The most important stretch of the West Coast Canal system is between Cochin and Quilon where the deepening and widening of the channel to a minimum bed width of 50 ft., and a depth of six ft., at low water, improvement to terminal facilities, and navigational aids are necessary.

In the stretch north of Cochin, two locks should be constructed between Punani and Chetwayi to replace earth dams. New locks should be designed to replace the existing locks which are too small. Road bridges should have a minimum head room of 16 ft. This stretch of the canal should be maintained to a minimum bed width of 30 ft. except in rocky portion where the width may be reduced to 20 ft. The extension of the West Coast Canal, north of Badagara upto Mahe is recommended. The stretch between Trivandrum and Quilon is in a poor state and should be improved. Provision of two new tunnels to replace the existing ones at Verkalla can be considered if there is traffic potential.

The rigid restriction of licensing of tank boats with wooden hulls under Petroleum Rules is affecting the bulk transport of oil by Kerala waterways. As these rules were introduced on the analogy of Rules prevailing in the Port of London, we suggest consideration of the possibility of amending these Rules to suit local conditions.

The coastal strip of Mysore State, north of Mangalore is devoid of through lines of communications. A canal linking Mangalore and Coondapur connecting numerous backwaters is likely to prove a useful waterway. There are a number of factories in this region which are likely to use this canal for transport requirements.

Along the coast of Bombay State, the coastal and inland navigation are closely inter-connected. The following improvements to waterways of Bombay are necessary: (a) hydrographic surveys of the rivers and the creeks; (b) dredging to improve depths; (c) navigational aids for marking shoals, rocks etc.; (d) tugs to assist country boats in tidal stretches to improve their turn round; (e) extensive afforestation measures on the foot hills in the catchment area; (f) improvement of terminal facilities. The problems of siltation of Rewas Jetty in the Dharamtar Creek should be studied in the models at Poona Research Station.

With the likely increase in the population of Greater Bombay, the transport bottleneck will become more acute in future. Development of water transport on the Thana, Bassin Creeks and the Ulhas river is necessary. Immediate investigations such as hydrographic surveys, extent of rock cutting necessary and possibilities of increasing head room under bridges should be undertaken on the basis of which plans could be prepared by experts for development of water transport.

The area commanded by the Rajasthan Canal is void of communications. The proposed canal with a gentle slope is suitable for development of water transport. We suggest there should be coordinated planning of the transport requirements of this region. The works on the canal should be so designed as to readily facilitate development of water transport in this area.

The waterway development in all countries like the U.S.S.R. and the U.S.A., has been mostly multi-purpose in character. In India the navigation aspect has not been given due consideration and should be kept in view while planning the development of river valleys and finalising the design of individual projects. The Central Technical Organisation should examine the provision of facilities such as locks etc., on the multi-purpose projects now being undertaken. It is essential that trees and other obstacles should be removed from the beds of reservoirs before water is stored to enable water transport to be developed.

With regard to the provision of navigation on the proposed Nagarjunasagar Canal, the details available

are not adequate for us to give a definite opinion. We suggest that full details such as traffic potential be examined by the Central Organisation.

Investigations are necessary to ascertain to what extent a number of rivers in the country are navigable from their mouth upwards into the hinterland. It is only on basis of this and other data like traffic surveys, that it would be possible to assess the cost and feasibility of extending navigation up these rivers and the possibility of connecting them.

The Central Organisation should classify the navigable rivers and canals of the country following the practice in western countries but keeping in mind our own peculiar conditions. It should be the ultimate aim to develop a unified network of waterways which can accommodate the most economical type of vessels with maximum draft throughout the year. The following classification is suggested for rivers and canals respectively.

Class	Rivers			Width of channel	
	Navigable minimum depth at				
	H.W. Season	L.W. Season			
I	8 ft.	6 ft.		400 ft.	
II	6 ft.	4 ft.		300 ft.	
III	4 ft.	3 ft.		150 ft.	

Canals		
Class	Navigable depth	Minimum bed width
I	Over 6 ft.	50 ft.
II	6 ft. to 4 ft.	30 ft.
III	4 ft. to 3 ft.	20 ft.

The country craft play an important role in the transport system of the country. There has been a decline in the activities of country boats all over the country. The State Governments should organise them on cooperative basis and provide facilities, such as tugs, adequate cargo and ancillary occupations. Immediate steps should be taken to see that neither restriction of their operation by ferry contractors nor excessive tolls impede their operation. Mechanisation of country craft is not recommended.

The employment potential of country craft and ferries is considerable. Expenditure on country boats would be fully justified even on this account.

Operation of ferries in the country, with the exception of those operated by the Railways and organised inland water transport operators and one or two States, is inefficient and inadequate. Numerous country boat ferries have capsized with loss of life due to inadequate safety measures and over-crowding. People have a right

to expect the Government to run ferry services on all important rivers until they are bridged and ferry services become unnecessary. The system of auctioning ferries is pernicious and must be given up. The North India Ferries Act and other similar Acts should be repealed. Ports like Calcutta, Cochin and Bombay should organise ferry and harbour excursion services and if necessary, existing laws should be amended for this purpose. Ferry services should also be organised on a number of multi-purpose reservoirs all over the country. They assist in making people water minded.

We recommend that the Railway administration should run more ferry services wherever possible as a gesture of their interest in the development of inland water transport.

Manufacture of craft, standard designs of propelling machinery and auxiliaries including marine diesel engines should be encouraged in the country. Manufacture of dredgers in collaboration with foreign firms specialised in this field is necessary.

There is acute shortage of Indian Nationals to man I.W.T. craft especially among qualified personnel like Masters or Serangs and Drivers. Existing training facilities are inadequate and should be improved. Engine room personnel be trained at existing workshops while Serangs, Dredging Masters and officers in-charge of conservancy could be trained at marine organisations at various ports and by I.W.T. organisations. Facilities at the I.L.O. Centre at Rangoon where diesel mechanics are trained, should be better utilised.

The road and Inland Water Transport Advisory Committee, set up by the Government of India should be split up into two separate committees, one for roads and the other for inland water transport, both under the Chairmanship of the Minister of State for Transport & Communications.

An inland water transport organisation in the Ministry of Transport & Communications should be created under an expert technical officer designated Director General of Inland Water Transport who should have the status of a Joint Secretary. The skeleton organisation now available in the Waterways, Irrigation and Navigation Directorate should be expanded and placed in charge of a Chief Engineer. The State Governments should also set up their own technical organisations to prepare schemes for development of waterways and maintenance of existing ones under the guidance of the Central Organisation. Thereafter it will be no longer necessary for regional boards like the Ganga Brahmaputra Water Transport Board to exist.

It is essential to employ technical men with experience of inland water transport at the Centre and State Government levels.

Lack of an organisation to look after the waterways has led to virtual extinction of inland water transport at

a number of places and is threatening the continued operation at others where it is still carrying on a precarious existence. It is only through setting up of a strong Central Organisation that the Ministry of Transport and Communications will be able to implement the undertaking given to the Estimates Committee of Parliament to accept responsibility of coordinating and developing inland water transport in India.

In the present neglected state of the waterways, development of water transport in certain areas, where conditions are favourable, should be taken up in the first instance before turning to other and more difficult areas.

There are possibilities of greater utilisation of inland water transport at Calcutta, Bombay, Cochin, Paradip and a number of minor ports. Details of schemes should be worked out. Utilisation of water transport for movement of orcs to ports for export or to industrial centres for processing should be examined.

There does not appear to be sufficient justification for a direct service on the East Coast from Calcutta to Cape Comorin connecting the Orissa Coast Canal with the Buckingham and Vedaranyam Canals or to extend the East Coast Canal system to join the West Coast canals via Cape Comorin.

The question of linking various rivers can be examined after implementation of various multi-purpose projects during the next 30 years which will make the rivers navigable to a greater extent than at present.

Through-booking facilities with the Railways should be extended to established and organised inland water transport operators in all regions.

Machinery on regional basis should be set up to make proper allocation of traffic from time to time bearing in mind the relative suitability of inland water and other modes of transport. In the present under-developed state of inland water transport, we do not envisage financial participation by the Railways.

We do not recommend any of the waterways in India to be declared as a "National Waterways" at the present stage. We, however, strongly urge that the Government of India should assume responsibility for improving and maintaining all important waterways specified by us in this report. The expenditure involved in maintaining and improving the waterways should be examined by the Central Technical Organisation on the basis of hydrographic surveys and other data.

The provision of funds for development of water transport in the Second Five-Year Plan is inadequate. A provision of at least Rs. 50 crores should be made in the Third Five-Year Plan to ensure some appreciable advance. We do not recommend apportionment of this amount among different States but suggest that the money should be available for all properly worked up schemes from any State Government. The total

expenditure for development of inland water transport envisaged in our report will be several times the figure of Rs. 50 crores but we recommend a provision of only Rs. 50 crores in the Third Five-Year Plan because of the difficulty of usefully spending anything more than this amount.

A concerted drive is necessary to make people water-minded. Government should encourage water sports, ragattas, yacht clubs and organise boat races among a number of villages on similar lines to the traditional boat race in Kerala.

A great deal of propaganda and publicity is necessary.

COMMITTEE ON MILK POWDER INDUSTRY, 1957—REPORT

Delhi, Manager of Publications, 1960. 41p.+iip.

Chairman : Shri Krishan Chand.

Members : Dr. L.C. Sikka; Shri T.R. Sathe
(Resigned).

Secretary : Shri V.A. Mehta.

APPOINTMENT

The Government of India appointed a Committee to review the development of milk powder industry in India vide Commerce & Industry Ministry No. 19(3)/57-C-D. (A)(MCI), dated February 19, 1957.

TERMS OF REFERENCE

- (i) To review the steps so far taken to develop the milk powder industry in India in the private and public sectors and also under the auspices of the UNICEF.
- (ii) To assess the scope for further development of the production of milk powder in India having regard to the present and potential availability of fluid milk and to suggest suitable locations for this purpose.
- (iii) To assess (a) present import; (b) indigenous production and (c) consumption of milk powder in India for different purposes.
- (iv) To make recommendations regarding the nature of plant and machinery required for the manufacture of milk powder keeping in view the present foreign exchange position and to examine the scope for the fabrication of roller and spray milk drying plants in India in the near future.
- (v) To make such other recommendations that the Committee may deem appropriate having regard to the objective of developing the production of milk powder in India.
- (vi) The Committee may also make an enquiry on the above lines in regard to condensed milk.

CONTENTS

Introduction; Imports of Dried and Evaporated Milks during 1952—57; Steps taken to Develop Milk Powder and Condensed Milk Industry in India; Essential

Requirements of Milk Drying or Milk Condensing Industry and Scope for Development in India; Present Position of the Dried, Concentrated and Malted Milk Industry in India; Plant and Machinery required for Condensed and Dried Milks and the Scope for indigenous Manufacture of such Machinery; Summary and Recommendations of the Committee; Appendix.

RECOMMENDATIONS

Demand For Condensed And Dried Milks Is Due To Poor Supply Of Fresh Milk

Milk is in demand by almost every one all over India. But the supply, which varies greatly from one part to another, is generally unsatisfactory from the standpoint of quantity, quality and price, particularly in large consuming centres. This has given rise to the use of condensed and evaporated milks, milk powder, both whole and skim, and proprietary milk foods for infants and invalids. The demand for these products varies in different parts of the country and is, in fact, an index of the supply of fresh milk locally available. There is, undoubtedly, a strong preference for fresh milk. But where that is not available in sufficient quantity, or its quality is considered doubtful, as is the case in most towns, particularly those lying in the eastern and southern States, manufactured products have, per force, to be consumed. The position in this respect will remain unchanged until the existing milk supply arrangements can be improved.

Demand Bound To Continue

According to the 1950 Census, there were 74 cities, the population of each of which exceeded a lakh and another 91, the population of which was between 50,000 and a lakh. With industrialisation and consequent urbanisation, and the growth of population, the number in each category has considerably increased. New townships have also come up, such as at Rourkela, Bhilai and Durgapur and it would be safe to assume that the

number of cities with population exceeding 50,000 would be in the neighbourhood of 250. The milk supply of few of these cities is satisfactory at present. Under the Second Five-Year Plan, no doubt, 52 cities are to be equipped with modern milk treatment plants, each, with some expansion in future, capable of ultimately supplying the entire requirements of the city concerned. But it will take these plants some years to be able to meet the full requirements of the entire population and, meanwhile, many people will have to keep on depending upon the manufactured milk products, as they are doing at present. There is also a more or less permanent demand from the defence forces stationed in forward positions. The demand for such products is, therefore, bound to continue for some considerable time inspite of the urban milk supply schemes included in the Second Five-Year Plan or which may be taken up during the future Plan periods.

Demand Met From Imports

As explained in Chapter I, the country has had to depend upon imported products to meet this demand, the value of such products being of the order of Rs. six crores annually. It is only in recent years that a spray-drying milk powder factory was set up within the country, to which has lately been added a section for the manufacture of condensed and evaporated milks. The total production of this factory, however, has been relatively very small to-date.

Great Need For Developing Milk Condensing And Drying Industry

Due to the current balance of payments difficulties, the imports of milk products have had to be curtailed rather heavily so much so that even the quota for baby foods has had to be reduced to about a quarter of the normal imports. The need for the establishment of a well-organised milk condensing and drying industry is, therefore, great and urgent in the interest of consumers.

It is equally necessary to set up milk condensaries and drying plants to provide a remunerative market to primary producers belonging to "milk pockets", which are remote from large consuming centres. In the absence of such plants, milk produced in these areas is disposed of as ghee, which does not give an attractive return to the producers. The Committee are satisfied that by using high fat buffalo milk, which is abundantly produced in many of these milk pockets, condensed and evaporated milk and full-cream milk powder can be produced at prices, which will compare favourably with the imported products and this, if done, will ensure a much higher return to the primary producer than he gets at present. The latter will also be the case where buffalo milk is disposed of as butter or ghee and skim milk powder, although without a material reduction in the

cost of production of milk, it will, it is thought, not be possible to produce skim milk powder at as low a price as in some other countries, which have a well-developed dairy industry.

This, however, is hardly of much consequence in the context of the current balance of payments difficulties, due to which, as stated earlier, imports have had to be curtailed thus giving virtually protected market to the indigenous product.

The Committee, therefore, recommend that a well-organised indigenous milk condensing and drying industry should be established as speedily as possible not only to meet the requirements of condensed, evaporated and dried milk, which the country is unable to import at present, but also to provide a remunerative outlet for surplus milk available in certain areas, which is not being marketed very profitably at present. This, they feel, will give a great fillip to the production of more milk in rural areas, as has happened around Anand.

Plants Coming Up

The Committee note with satisfaction the developments in this regard, which are taking place both in the public and private sectors. These developments comprise establishment of two spray-drying milk powder factories at Rajkot and Amritsar in the public sector and three plants are for the manufacture of malted milk at Nabha, second for the production of condensed milk at Moga and the third, a roller drying set up, for the manufacture of a well-known brand of baby food at Aligarh—in the private sector. The Rajkot plant, although located in one of the most prolific cow milk pockets in the country, the Committee understand, has been designed to manufacture butter, ghee, and skim milk powder. They think that the proper use of this plant will be to manufacture baby food instead of skim milk powder and for this purpose the formula developed by the Central Food Technological Research Institute, Mysore, may be tried. Likewise, the Amritsar plant, too, should be used for the manufacture of baby food to the extent cow milk is available for this purpose and preference should be given to the manufacture of full-cream milk powder from buffalo milk rather than using it for producing butter, ghee and skim milk powder. This, if done, the Committee hope, will make the country more or less self-sufficient with respect to condensed, evaporated and dried milks, including baby foods, but excluding skim milk powder, on the basis of her imports of these products in the past. Additional plants will be required to meet the requirements of skim milk powder.

Improvement Of Hygienic Quality Of Milk

Due to the lack of care exercised in the production of milk under average Indian conditions, it gets heavily contaminated with bacteria, which not only reduces its

keeping quality and may cause difficulties in condensing and drying, but also leads to the production of a milk powder which contains large number of dead bacteria. In order to avoid such contamination milk should be produced hygienically and extension work should be undertaken by competent technical staff in the milk shed of each plant.

Extension Service

Extension service is also necessary to increase and intensify milk production in the selected areas, so that the quantity required by each plant can be produced from as small an area as possible. The latter will lead to economy in the cost of collection as well as ensure supply of fresh milk to the plant. The extension work should consist of organisation of producers' cooperatives to market milk and to arrange supply of feed, fodder, fertilisers and improved seeds, grant of loans to enable producers to purchase better milching stock, supply of well-bred bulls and/or institution of an efficient artificial insemination service, provision of a good veterinary service and purposeful propaganda to improve the existing feeding and management practices, including care in the production and handling of milk. Special staff necessary for this purpose should be employed by the State Governments concerned.

All Weather Roads

It will also be necessary to provide a net work of all-weather roads in the milk sheds of the plants, where such roads do not exist at present, to speed up transport of milk, as has been done to facilitate transport of sugar-cane from cultivators fields to sugar factories. Because of the perishable nature of milk, the need is even greater in case of milk plants. The States concerned should, therefore, give a high priority to this requirement in their overall road building programmes.

Foreign Exchange Required For Remaining Plants Included In The Second Plan

The Second Five-Year Plan also provides for the establishment of six other spray-drying milk powder factories in the public sector two each in Andhra Pradesh and U.P. and one each in Bihar and Punjab. The Plan also includes nine rural creameries each of which can be equipped with a roller-dryer. It has not so far been possible to execute these projects basically due to non-release of foreign exchange required for the imported equipment. The completion of these projects will give the country installed capacity equalling 47.7 per cent of her past commercial imports of skim milk powder and will necessitate foreign exchange expenditure of the order of Rs. one crore on the assumption that equipment required for these plants cannot be manufactured indigenously, partially or fully, within the current Plan

period. The Committee recommend that, as suggested in a subsequent paragraph, the question of indigenous manufacture of the required equipment should be examined speedily by the Ministry of Commerce and Industry in collaboration with the Ministry of Food and Agriculture, and foreign exchange necessary for what cannot be thus obtained should be released so that the projected plants can come up expeditiously.

Scope For Additional Plants

The Committee think that there are many other areas lying in Andhra Pradesh, Bihar, Bombay, Madras, Mysore, Madhya Pradesh, U.P. and Punjab, which can feed a milk condensery and/or milk powder factory. While they have a fairly good idea of the approximate locations of nearly a dozen plants for this purpose, they feel that these should be confirmed by carrying out detailed milk surveys. They recommend, therefore, that a precise plan should be prepared as early as possible for the establishment of these plants in different parts of the country during the next five to seven years. The plan should indicate which particular area will be best suited for the location of a milk condensery, a roller-drying plant or a spray-drying plant.

Milk Surveys

To prepare a realistic plan, it will be necessary to carry out milk surveys in the better known "milk pockets" all over the country. The Committee recommend that such surveys should be undertaken as early as possible. The results of these surveys will be helpful not only to the State Governments in planning the plants which may come up in the public sector, but also to private parties who may be considering putting up such plants. There is a general impression in other countries that India does not offer much scope for a milk drying industry. This erroneous idea can only be dispelled by factual data regarding availability of milk which the milk surveys would provide. In deciding the locations of plants of different kinds and capacities, the requirements of fresh milk, both present and future, of urban consuming centres lying in the vicinity of the proposed locations should be carefully assessed. Plants should be considered for only such places as can supply milk in excess of the quantity required for liquid consumption. Subject to this overriding condition, it will be an advantage to include equipment for the manufacture of products in an urban milk treatment plant.

Need For Central Staff To Carry Out Milk Surveys

As few States possess experienced staff for carrying out milk surveys, and to ensure uniformity of technique, it will be desirable to entrust this work to a Central staff employed in the Ministry of Food and Agriculture.

Relative Suitability Of Roller-Drying And Spray-Drying Plants

With regard to the relative suitability of roller-drying and spray-drying plants under Indian conditions, the Committee think that plants of both the kinds have their place, the choice depending upon the availability of milk and finances and the usage of milk powder in view. Roller-drying should be adopted where the quantity of milk available is less than 300 mds. per day or where skim milk, butter milk or whey are to be dried for use as animal food or for manufacturing purposes. Baby foods can also be manufactured by that process. But spray-drying must be adopted where dried milk is to be reconstituted for use on table.

Need For Research

Little research work has so far been carried out in the condensing and drying of milk, produced by Indian cows and buffaloes at different times of the year. Many problems in this field have therefore, remained unsolved. These must be tackled if the country is to have an industry which is organised on sound lines. The Committee, therefore, recommend that the National Dairy Research Institute, Karnal, should pay special attention to a study of these problems and should undertake manufacture of evaporated, condensed, malted and dried milks on pilot plant scale, using cow and buffalo milk produced at different times of the year. The plant required for this purpose, the Committee note, is already in possession of the Institute.

Need For Indigenous Manufacture Of Dairy Equipment

The equipment required for a modern milk condensery or drying plant is both varied and complicated. But little of that is manufactured within the country at present. The Committee recommend that the requirements of such equipment (as also equipment for milk treatment plants) over the next five to seven years should be assessed and steps taken to organise its manufacture by private trade or in a plant which may come up in the public sector. They feel that the private trade is likely to show interest if assured of a good demand over a period and suggest that negotiations should be undertaken for this purpose first with the four Indian firms of dairy engineers, who represent some reputed overseas manufacturers. If these prove of no avail, indigenous manufacturers of allied equipment should be induced to take up manufacture under licence from overseas manufacturers, who are not represented in India. But if even that fails, a factory should be put up in the public sector. The Committee wish to emphasise that in the context of the country's current foreign exchange difficulties, which may continue for some years, indigenous manufacture of the required plant and machinery is an essential prerequisite to the development of an organised dairy industry, be it for supply market milk or for condensed and dried milks. They, therefore, hope that the matter will be given the prompt attention it deserves in the interest of national health and well being.

BUILDINGS PROJECTS TEAM OF PUBLIC WORKS ADMINISTRATION, 1957—REPORT

New Delhi, Committee on Plan Projects, 1963. 126p.+ivp.

Leader : Shri S.K. Patil.

Members : Shri Sarup Singh; Shri N.G. Dewan; Maj.-Gen. Harkirat Singh; Dr. Eng. A. Carbone (expired; Shri N.V. Modak was appointed in his place); Shri C.P. Malik (transferred; replaced by Shri C.B. Patel).

Secretary : Shri T.S. Vedagiri.

APPOINTMENT

The Buildings Projects Team on Public Works Administration was constituted under the Committee on Plan Projects in March 1957 in order to carry out evaluation of selected building projects and lay down norms and standards with a view to achieving economy in

building construction costs on rational lines.

TERMS OF REFERENCE

For evaluation:

(i) Multi-storeyed office accommodation such as on King Edward and Queen Victoria Roads and some of the office buildings constructed by the C.P.W.D. outside Delhi.

(ii) Slum Clearance schemes of a few States.

(iii) Comparable building projects of four to five different States to be selected by the Leader of the Team in consultation with the Chairman, Committee on Plan Projects.

As a result of the evaluation of the above projects, the Team was to make suggestions on the following general questions:

(i) Standardisation of technical requirements of similar types of buildings with a view to achieving the maximum economy in costs and scarce materials consistent with the utility and optimum life of the building.

(ii) Comparative study of rate structure and profit margins.

(iii) Organisational questions, especially the workload on each category of staff, and the principles on which it is computed.

(iv) Organisation of "technical audit" for the work of the Public Works Department, its functions and location i.e. within the P.W.D. or outside it.

(v) Methods of work relating to designing, planning and execution of Projects, including any factors, that impede work and remedies for them

CONTENTS

Introduction; Planning of Works; Construction Agencies; Execution of Works; Technical Examination; Stores; Accounts and Audit; Organisation and Administration; Summary of Important Recommendations; Appendices I to XIX.

RECOMMENDATIONS

Adequate time should be allowed to engineering departments to plan the works properly with a view to obtaining the most economical results.

The outline of a Five-Year Plan should be finalised at least one year before the commencement of the Plan period to make planning effective.

Budget provision should be made only for those works which have been administratively approved and demands for funds should only be made after consultation with the Chief Engineer.

With a view to an even distribution of construction activity throughout the year, we would suggest that the budget year commences from first of July.

Budgeting for materials is as important as budgeting for works. We recommend the setting up of material budgeting cells in the State and Central Engineering Organisations. The work of these cells should be co-ordinated by a Central Cell in the Planning Commission which should be in a position to correlate overall requirements and availability of construction materials and equipment.

In the case of proposals involving acquisition of land or materials with long lead times, the budget allotment itself should be given in two parts, the first part to cover the cost of such materials and/or land and the other given subsequently, as for works in progress, to cover the actual cost of execution.

Requirements of projects should be studied by a

composite Panel in which all the technological disciplines connected with the particular undertaking including work study are represented.

When once requirements have been arrived at in a logical way, the users should normally refrain from making changes at a later stage.

Check-lists for different types of project should be prepared indicating the norms and standards. The engineering departments may use check-lists prepared by the Committee on Plan Projects for multi-storeyed buildings, residential buildings, industrial estates, hostels etc. In other cases, they can prepare check-lists in consultation with the authorities concerned. If schemes are accompanied by check-lists indicating the figures sought to be realised in comparison with the norms laid down, it would facilitate checking and avoid to a great extent queries and resultant delays.

More public construction undertakings, such as the National Projects Construction Corporation and National Buildings Construction Corporation, should be set up.

Social organisations, such as the Bharat Sewak Samaj, should be given greater encouragement. They may be given exemptions from payment of earnest money and security deposit. Public Works Departments may also hire out initially their tools and equipments to the Samaj.

The earnest money to be paid at the time of tendering should be reduced to one per cent of the cost of works subject to a maximum of Rs. 20,000.

The security deposit should be released in three stages; 50 per cent on completion of work, 25 per cent on payment of final bill and 25 per cent on the completion of defects liability period. This will considerably avoid complaints regarding undue locking-up of contractor's money.

We have taken up the preparation of standard Schedules of Rates by various zones in the country. It is recommended that a permanent cell be formed in each zone for the purpose of keeping this schedule up-to-date. For the purpose of coordination, a cell should be set up in the Planning Commission.

The adoption of lump sum contract would lead to speedier completion of works and reduction in contractual problems.

Some existing conditions of contract are oppressive on one side. Suitable recommendations have been made to modify these conditions with a view to making them equitable.

The necessity of prompt payment to contractors does not require special emphasis. The undisputed portion of the bill should be paid within four months of the completion of the work.

Scrutiny of contractor's claims by departments prior to submitting them for arbitration should be discontinued.

The present system of appointing a sole arbitrator by Government is satisfactory.

Once an award has been given, it should be implemented quickly. For this purpose, a lump sum should be placed at the disposal of the Chief Engineer at the beginning of the financial year.

Engineering authorities should be empowered to accept, where necessary tenders which are not the lowest subject to an intimation to the next higher engineering authority.

If the plan projects are to have an impact on the public, it is essential to see that the flow of benefits is commensurate with the expenditure incurred. This can be achieved by adopting the "Line of Balance Technique" outlined by the Committee on Plan Projects for programming and progressing of works.

The present system of technical examination of works by an outside agency has done more harm than good. While it has disclosed some over payments and lapses in the line of management, it has also had the effect of killing initiative among officers obliging them to play safe and of acting as a strong deterrent to the development of leadership. The Technical Examiners' Organisation as such should be abolished and replaced by measures for strengthening of public works organisations from within such as rationalisation of workloads, preparation of realistic schedules and specifications, increase in powers and institution of work study wings.

Existing procedure for stores accounting is cumbersome. A completely revised scheme has been given which would make stores management simpler and more purposeful.

It is advisable to separate the accounting and audit functions and keep the former (accounting and primary audit) with the Chief Engineer.

An S.A.S. Accountant should replace the existing Divisional Accountant in each Public Works Division.

The procedure for public works accounting is involved. There is a great scope for simplification. Detailed recommendations including the following have been made for streamlining the procedure with reference to payment of bills to suppliers, inter-departmental transactions, accounting for materials, etc.

(1) Payment of bills of supplies could be made direct to the suppliers or to the Accounts Officer of the Supply Department.

(2) Payments for railway freight could be made through cheques instead of credit notes.

(3) Inter-departmental adjustments should also be settled by cheques.

(4) Preparation of Capital and Revenue Accounts should be dispensed with.

There should be for each State one unified service of Engineers for all branches of engineering in that State.

The posts of the Secretaries of the engineering departments should be held by the highest technical personnel i.e., Chief Engineers of the State. This would lead to

both economy of time and manpower and efficiency in execution of projects.

The offices of the Secretary and the Chief Engineer should be combined thereby avoiding duplication of personnel and work which obtains at present in several States and Central Departments.

A high-power board of technical experts, namely, the Board of Engineers should be set up in each State charged with specific responsibility for coordinating engineering activities and tendering expert advice from day-to-day on important matters affecting the development of the State.

In the context of the vast developmental activity that the country has undertaken, planning assumes great importance. A Central Design and Architectural Branch should be set up in all Public Works Departments.

Engineering organisations in the country should become more alive to work study and the role it can play in improving efficiency and economy all round and especially in the scheme of cost reduction which has assumed importance today. A Work Study Wing should be set up in each department for evaluation of works and works procedures with a view to economy and efficiency.

Powers of engineering officers vary widely and are inadequate to meet the increasing tempo of works. Suggestions for radically altering the powers have been made. Notable among them are mentioned below:

(a) Superintending Engineer should have powers of technical sanction up to Rs. five lakhs and the Executive Engineer upto Rs. one lakh.

(b) The Superintending Engineer should have powers to accept tenders upto Rs. 10 lakhs and Executive Engineer upto Rs. one lakh.

(c) The Superintending Engineer and Executive Engineer should have full powers to sanction extra or substituted items for their own contracts.

(d) The Superintending Engineer should have full powers to grant extension of time.

Workloads of divisions on value basis have been prescribed taking into account the difference in the nature and type of work.

Original works (Bldgs. & Roads)

concentrated ... Rs. 40 to 50 lakhs

Original works (Bldgs. & Roads)

scattered ... Rs. 25 to 40 lakhs

Minor and Maintenance works

(Bldgs. & Roads) Concentrated ... Rs. 16 to 20 lakhs

Minor and Maintenance works

(Bldgs. & Roads) scattered ... Rs. 10 to 16 lakhs

Original Works (Electrical)

... Rs. 20 to 30 lakhs

Maintenance works (Electrical)

... Rs. 7 to 10 lakhs.

Staffing norms also have been prescribed. With the norms so prescribed, the Chief Engineer should be empowered to create extra divisions or sub-divisions as the volume of work warrants and to staff them.

COMMITTEE OF ENGINEERS, 1957—REPORT

New Delhi, Ministry of Railways (Railway Board), 1959. 56p., Charts.

Chairman : Dr. A.N. Khosla.

Members : Maj. Genl. R.E. Ascrappa; Shri N.K. Roy (replaced by Shri D.R. Kohli); Shri H.P. Sinha; Shri D.R. Mehta (replaced by Shri R.D. Dhir).

Co-opted

Members : Shri S.L. Bazaz; Shri P.R. Ahuja; Shri B.B. Varma; Shri P.C. Khanna; Shri M.R. Venkataram; Shri S.D. Bamjee; Shri H.K.L. Sethi; Shri N.K. Roy; Shri S. Basu.

Secretary : Shri B.C. Ganguli (was transferred and Shri D.N. Chopra was appointed in his place; Shri Chopra was also transferred and Shri N.K. Mehra was appointed as Secretary).

APPOINTMENT

A large number of bridges including their protection works were designed and constructed in this country in the latter half of the last century on the basis of technical knowledge and with the data then available. Hydraulic science and technical knowledge in this sphere have since advanced considerably and further data have become available. It was, therefore, considered profitable to review the methods of designs of bridges in the light of the latest knowledge and experience gained and to indicate the standards which should generally guide the design of new bridges in future. With this object in view, the Government of India in the Ministry of Railways decided to set up a committee of engineers to investigate and review the methods of estimating the maximum flood discharge from catchment areas in order to determine the waterway and other connected factors required in connection with the design of bridges. Accordingly, the Ministry of Railways, in Resolution No. E57COI/3 (RB1) dated March 4, 1957, set up this Committee.

TERMS OF REFERENCE

(i) To indicate for different regions the method of determining the maximum discharge to design the waterway for bridges. In places where empirical formulae are recommended to be used, the value of constants to be prescribed for guidance;

(ii) To indicate the general principles for determining the extent of bed scour for the design of foundations and the design of training works, the extent of afflux to be permitted at bridge openings for the peak discharge, the minimum free-board for various types and sizes of bridges and waterways to be provided; and

(iii) To indicate measures to ensure safety of railway bridges against failure of various 'Railway affecting' works like tanks, canals, etc.

CONTENTS

Composition of the Committee; Terms of Reference and Particulars of Meetings; Determination of Maximum Discharge for the Design of Waterways of Bridges; Determination of Bed Scour for the Design of Foundations and Training Works, the Extent of Afflux and the Minimum Free Board for Bridges and Determination of Waterway Required; Organisation for implementing the Short-term and the Long-term Plans and its Functions; Measures to Ensure Safety of Railway Bridges against Failure of various 'Railway Affecting' works; Conclusions and Summary of Recommendations; Appendices A to E; Charts.

RECOMMENDATIONS

Determination Of Maximum Discharge For the Design Of Waterways Of Bridges

The waterway of bridges should be designed to cater for the maximum recorded flood when the data available extends over a period of not less than 50 years, or for a 50-year flood when data available are for a lesser period.

Foundations and protection works should, however, be designed for a larger flood, named as 'foundation design flood'.

For better results, collection of requisite data should be started immediately in accordance with a systematic plan to cover the entire country. As such, the evolution of the revised approach will have to be considered as a long-term measure, but a short-term plan based on available data or data that can be readily collected is proposed with a view to improving the present approach, as soon as possible. In the meantime, however, the established practices as obtaining in different regions have to continue.

The Committee have suggested two plans as under:

I. Short-Term Plan

(a) It is recommended that only one simple formula applicable, if possible, to the whole India should be evolved, with the range in the value of the coefficient reduced to the minimum possible.

(b) India should be divided into various regions and sub-regions of similar hydro-meteorological conditions and the value of coefficient worked out for different slopes and sizes of the catchments for these regions.

(c) A practical approach for the determination of the value of coefficient would be to observe actual flood discharges at a large number of representative bridges covering the whole country and then to correlate these discharges with the size, slope and nature of catchments, rainfall pattern etc.

(d) The Bridge Reviewing Cells already set up on each Railway should continue.

(e) A central cell should be established under an eminent Bridge Engineer in the Railway Board for:

- (i) The collection and analysis of a large volume of hydrological, meteorological and topographical data which already exists;
- (ii) The preparation and execution of a comprehensive plan for the collection and analysis of further data for at least two monsoon periods;
- (iii) The observation of actual discharges at a large number of representative bridges;
- (iv) The fixation of value of coefficient in an empirical formula or formulae to be evolved for the determination of the design-flood or the preparation of graphs and charts showing the correlation between discharge, catchment area and the rainfall pattern; and
- (v) The study of design practices of other advanced countries.

The results of these studies will be required for application, pending development of better and improved methods under the long-term plan.

II. Long-Term Plan

The long-term plan will include:

- (a) The preparation of intensity-frequency charts of rainfall;
- (b) The analysis of all past and present storms;
- (c) The establishment of unit hydrographs for representative catchments of different regions;
- (d) The study of the behaviour of the existing bridges (including other hydraulic structures) and the assessment of the adequacy of current theory and practice; and
- (e) The task of bringing up-to-date the information and knowledge contained in the classics on this subject.

The programme of these studies would naturally be adjusted in the light of the subsequent knowledge on the subject.

One of the fundamental requisites for the purpose would be the rapid installation of a network of self-recording rain-gauges and stream-gauges, essential requirements being completed within three years. Necessary foreign exchange required in this connection should be allotted immediately.

The proposal for additional self-recording rain-gauges and stream-gauges should be drawn up by a Committee.

An organisation adequate to deal with the voluminous work required should be set up on a permanent basis,

with wings in the Railway Board, Central Water & Power Commission, Indian Meteorological Department and the Roads Wing of the Ministry of Transport.

There should also be a Coordinating and Planning Committee for planning and allocating the work and later reviewing and approving for publication the studies of the various wings.

The observed data where available should be the main basis for the determination of discharge. Empirical formulae should be used only as a guide.

Determination Of Bed Scour For The Design Of Foundations And Training Works, The Extent Of Afflux And The Minimum Free-Board For Bridges And Determination Of Waterway Required

There appears to be need for further investigations and research on river regimes, guide banks and protective works, in order to be able to assess the adequacy of existing theory and current practice and to suggest modifications where called for.

The design practice in respect of hydraulic structures varies considerably in different engineering organisations and even in similar organisations in different States, mainly because of a lack of coordination in respect of interpretation of different hydraulic theories and the assessment of the behaviour of existing structures in the various regions. The Committee has attempted to interpret these theories on the basis of sound practice which has stood the test of time, to focus attention on fundamentals and to evolve uniformity of practice. The correct application of these in actual practice will, however, largely depend on the judgement of the engineer responsible for the design on the basis of his mature experience.

Design Of Waterway

The design of waterway of a bridge is a problem which has two main considerations, namely, hydraulic and economic. A correct balance between these two opposing considerations has to be struck, which will largely be a matter of judgement based on experience. However, some broad principles for determining the correct balance have been laid down.

Depth Of Scour

The pier foundations should be taken to twice the depth of normal scour plus a further depth for grip. It is recommended that the foundations be taken to a depth not less than $1.33D'$ (D' is twice the normal depth of scour) below the 'foundation design-flood' level for all bridges and further research carried out.

Records of depth of scour which exist for a large number of bridges and barrages on the major rivers should be centrally collected and analysed.

Investigations should also be undertaken to establish

relationship between scour depth and flood discharge in gravel and boulder beds and in coherent materials.

Afflux

No hard and fast rules on the permissible limit of afflux can be laid down beyond the general statement that harmful afflux should be avoided.

Clearance

A higher clearance has been recommended in case of smaller bridges than what has been normally allowed in the past.

Free-Board

The free-board for railway embankments should not be less than three feet above the 'foundation design-flood' level plus afflux.

Training Works

For rivers flowing in alluvium, the training works should continue to be designed on the basic principles enunciated by Spring, modified, if necessary, in the light of model experiments which may be carried out for important bridge works where river training presents problems.

For rivers in montane and sub-montane stages

(a) A guide bund of the type adopted in alluvium may not serve effectively;

(b) The length of the downstream portion of the guide bund should be somewhat longer than that considered suitable for a guide bund in alluvial bed;

(c) The thickness of pitching on the slopes of guide bunds and the thickness of the apron protection should also be heavier than that recommended by Spring for guide bunds in alluvial beds; and

(d) The apron should not consist of loose boulders, but should be built of large cement concrete blocks chained together or of wire-crated boulders or a combination of the two. The practice of laying wire-crates along the toe of the slopes which has been generally followed in the past, should be carefully reviewed, as it may be preferable to lay wire-crates perpendicularly to the guide bunds.

Protection Works

No great modifications have been suggested in the existing practice relating to the design of spurs, groynes, and protective pitching for approach embankments, except that in the case of approach banks which are, or are likely to be, subject to the parallel flow of water, the question of providing an apron at the toe of the pitching or some other alternative protective measure should be seriously considered.

Small bridges should normally be provided with flooring and splayed wing walls. The downstream curtain wall should be protected by an apron designed for the maximum scour.

If a standing wave or hydraulic jump is expected, the apron should have under it a blanket of inverted filter to prevent the bed sand being sucked out by the pressure differentials.

General

The course of the stream should be periodically surveyed and, if necessary, measures taken to ensure normal and smooth flow, as far as possible.

If an existing bridge does not satisfy one or more of the standards recommended in the report it need not necessarily be enlarged or reconstructed. A careful study of such bridges should be made and ways and means devised to ensure the safety of these bridges by providing suitable bed protection in cases where foundations are inadequate in depth and in other cases by suitable protection works.

Measures To Ensure Safety Of Railway Bridges Against Failure Of Various 'Railway Affecting' Works

There have been a number of instances where failure of 'Railway affecting' works has led to breaches in railway embankments and in some cases to train accidents. The whole question of responsibility for and maintenance of such works has to be reviewed and a unified procedure evolved.

It is recommended that:

(a) The State Committee of Engineers should prepare a list of and notify all 'Railway affecting' works; and arrange for submission of annual reports of inspection, system of watch and the issue of warnings of apprehended and actual breaches of tanks.

(b) The State Governments should be entrusted with the responsibility for checking up and ensuring the maintenance of all 'Railway affecting' works, their watch and issue of warnings.

(c) The State Irrigation Departments should have the authority to take action against unauthorised excavation of channels from beds of active rivers.

(d) It should be obligatory for the party constructing a work which is likely to become 'Railway affecting' to obtain prior approval of the Railway concerned.

(e) In order that the directions in respect of maintenance and construction of 'Railway affecting' works be comprehensive and unified for all States, a Manual of Instructions should be prepared on an all India basis, and the essential requirements of safety, as set forth in this Manual, incorporated in a Central statute either as an amendment to the Indian Railway Act or as a separate Act.

JUTE ENQUIRY COMMITTEE, 1957—REPORT

Delhi, Manager of Publications, 1958. 128p.+vp.

Chairman : Dr. S.R. Sen.
Members : Shri S.A. Teckchandani; Shri A.P. Mathur;
Shri K.N. Agha; Shri K.C. Basak.
Secretary : Shri J.S. Sarma (replaced by Dr. S.B.L.
Nigam).

APPOINTMENT

The Conference on Promotion of Jute Production, held in the Ministry of Agriculture on January 12, 1957, recommended that a Committee be appointed to consider, *inter alia*, the question of requirements of jute and mesta by the Indian jute mills. Accordingly, the Jute Enquiry Committee was constituted under the Ministry of Agriculture vide their Memorandum No. 5-16/57-Com.II, dated March 7, 1957.

TERMS OF REFERENCE

- (i) To consider the requirements of the jute mills in respect of the various qualities of jute and mesta;
- (ii) To assess the extent of availability of various qualities of jute and mesta in India including the stocks with mills;
- (iii) To determine the quantum of raw jute to be imported from Pakistan and to examine the possibilities of stopping or staggering imports from Pakistan of those varieties of raw jute of which there is enough production in India;
- (iv) To consider as to what extent the Indian jute mills should be allowed stock piling and have carry-over stocks; and
- (v) To work out and recommend the proportions in which mesta and jute should be grown, particularly whether and how far the growth of mesta should be encouraged in any specified parts of the country.

CONTENTS

Introduction; Requirements of Raw Jute and Mesta; Availability of Raw Jute and Mesta; Imports of Raw Jute; Mesta; Price of Raw Jute; Mills' Stocks of Raw Jute; Improvement of Quality and Marketing of Raw Jute and Mesta; Summary of Conclusions and Recommendations; Minute of Dissent by Sarvashri S.A. Teckchandani and A.P. Mathur; Appendices; Conversion Table.

RECOMMENDATIONS

The total requirements of jute and mesta during the First Plan period 1951-52 to 1955-56 varied widely but on the whole the consumption requirements of raw jute

and mesta increased by about 40 per cent during the First Plan period. The total requirements of raw jute and mesta in 1955-56 amounted to 70.9 lakh bales.

The world export demand for jute goods during the Second Plan period is expected to go up by about 15 to 20 per cent over that of 1955-56. India has kept pace with the rate of increase in the world trade since 1950-51. Though the world markets have become increasingly competitive and Pakistan is coming up as India's keen competitor, our share in the world trade during the Second Plan period may not decrease. We, therefore, think that our exports of jute goods in 1960-61 would increase at least by about 15 per cent over those in 1955-56.

In view of the increase in population and rise in the standard of living which is expected to take place during the Second Plan period, the total consumption requirement of raw jute and mesta at the end of 1960-61 may be of the order of 80 lakh bales. Allowing for the likely increase in stocks of raw jute and jute goods during the Second Plan period, the total requirements of raw jute may be assumed at 82 lakh bales.

On the basis of the data available at present it is not possible to work out variety-wise requirements of raw jute and mesta during the Second Plan period. Roughly, however, the break-up of the future requirements of different varieties of the fibre may be taken as 50 per cent white jute, 25 per cent mesta, 15 per cent tossa-jute and 10 per cent cuttings.

Requirements of the various grades of the fibre during the Second Plan period may be taken as 34 per cent middles, 54 per cent bottoms and 12 per cent X-bottoms.

For manufacturing Bright Hessian for U.S.A. markets about 50,000 to one lakh bales of superior Jat variety of jute are required. This variety of Jute is not being produced in the country at present in any appreciable quantity.

The target of jute production has been fixed at 55.4 lakh bales in the Second Five-Year Plan. No target of mesta production has, however, been fixed. Judging from the rate at which mesta production has been increasing in recent years, we think that the total production of mesta by the end of 1960-61 would at least be about 20 lakh bales. The total internal supply of jute and mesta would thus be about 75.4 lakh bales at the end of the Second Plan period.

Though no regular data are collected at present about the variety-wise production of raw jute, the information received from the State Governments shows that the total

production of jute (excluding mesta) roughly about 70 per cent is white jute and 30 per cent is tossa jute.

The tentative consumption demand and supply position of raw jute during the Second Plan period shows that the country would be short of about 4.4 lakh bales of raw jute at the end of 1960-61. Of this the shortage of white jute would be about 1.2 lakh bales while that of tossa jute and cuttings would be about 3.2 lakh bales. Allowing for the increase in the stocks of raw jute and jute-goods (in terms of raw jute) with the mills which is likely to take place during the coming years, the over-all deficiency of the fibre at the end of 1960-61 may be estimated at about 6.4 lakh bales.

The deficiency of raw jute and mesta according to various grades may be broadly indicated by the imports from Pakistan. Of the white jute imported from Pakistan about 25 per cent is of middle grade, 60 per cent is of bottom grade and 15 per cent is of X-bottom grade. About 80 per cent of the cuttings imported from Pakistan are of white jute while the remaining 20 per cent are of tossa jute. Our basic deficiency is thus of better grades of white jute viz., tops and middles.

There is no doubt about the fact that the country can produce almost all the good quality jute required for maintaining our competitive position in world markets, except perhaps the Jat variety of white jute, a small quantity of which—about 50 thousand to one lakh bales—is required for manufacturing Bright Hessian for U.S. markets.

For meeting the deficiency in the supply of the fibre it does not seem advisable to continue to rely on imports from Pakistan to any large extent.

To be self-sufficient in the supply of the fibre it is necessary to increase the internal production during the Second Five-Year Plan period. There may be little scope for increasing further the target of production of jute which has already been raised from 50 lakh bales to 55.4 lakh bales. We have, therefore, to look mainly to the increase in the production of the substitute for jute i.e., mesta for meeting the deficiency.

Every effort should be made to achieve the plan target of raw jute and to ensure that as large a proportion as possible of this is quality jute specially white jute of superior grades. There are certain areas which are already growing good quality jute and it is in these areas that efforts should be concentrated in future for increasing the production.

In areas where natural supply of slow flowing good retting water is available the State Government should try to supply better seeds, fertilizers and encourage adoption of improved techniques such as line-sowing, wheel-hoeing, better retting techniques etc. Such areas may to some extent be available also in the neighbourhood of canals in Damodar Valley and Mayurakshi Projects areas in West Bengal. If timely irrigation is

made available, it is possible to increase the acreage under jute from the existing one lakh acres to about two lakh acres in the D.V.C. zone. In the Mayurakshi Project areas, if adequate amount of irrigation water is made available from April to July, the jute acreage can be increased considerably in Murshidabad, Burdwan and Birbhum districts.

In those areas where the fibre grown is good and strong but retting water facilities are not adequate the primary work should be to renovate the existing retting tanks as well as to dig more tanks.

We feel that the Indian Central Jute Committee should investigate the complaint that water in the retting tanks gets spoilt after some jute has been stored into it and subsequent steepings affect the colour and quality of the fibre. Research should be conducted in the matter and some chemical, biological or other process for improving the quality of the water in tanks, may be found out.

Since our efforts in the coming years would have to be confined to increasing the yield per acre in areas where good quality jute is already being grown, it is desirable, in our view, for the State Governments to undertake a detailed survey of the jute growing areas in their States. The Soil Survey recommended by the Expert Committee on the quality of jute should be completed as early as possible.

There are some possibilities in Assam, Orissa and U.P. for bringing in more area under jute without affecting the production of paddy. We suggest these possibilities may be explored by the State Governments.

The imports of raw jute in recent years has been of the order of about 14 to 15 lakh bales, these are mainly of those varieties which are already produced in India. Of the total imports from Pakistan about 60 per cent are cuttings, 30 per cent long jute and 10 per cent Habibis.

Of the expected deficiency of the fibre during the Second Plan period, we feel that the basic shortage may be only in respect of Jat variety of white jute which at the most may be estimated at about two lakh bales. The balance of the deficiency, which should vary from year to year, may be met by imports of cuttings, preferably of superior grades of jutes. Barring these varieties, namely, Jat variety of white jute and cuttings, no other variety of jute should in our view, be allowed to be imported. Inferior varieties of jute, in particular, should not be allowed to be imported.

We feel that staggering of imports is necessary for protecting the interests of the cultivators. In our view, the issue of import licences should be regulated in such a manner that the requisite quantity of long white jute viz., two lakh bales is imported largely during the months of July, August and September. During the same period a small quota of cuttings, say two lakh

bales, may also be allowed. The balance of the import requirements of cuttings in a year may be allowed to be imported only after December.

We suggest that, in future, import policy of raw jute should be decided every season by the Ministry of Commerce and Industry in consultation with the Ministry of Food and Agriculture once in July for the interim quota and again in September/October for the final quota in the light of supply position.

In order to enable the Government to make a proper assessment of the demand and supply position every year we consider it very necessary that variety-wise and, if possible, grade-wise production figures of jute and mesta should be collected on a regular basis. Similarly, the Jute Controller should maintain details of the variety-wise and grade-wise imports of jute and cuttings from Pakistan. It is also desirable to ask the mills to classify their stocks of jute into different grades.

While there is every reason to be watchful about India's competitive position in world markets particularly because of Pakistan's emergence as a formidable competitor in jute goods, we feel that there is no special reason at present to get alarmed at the admixture of mesta in the production of jute manufactures. We are inclined to agree with the view of the trade that the mill industry will be able to take care of the requirements of the foreign markets and the question of admixture of mesta with jute and the extent to which it should be done, should better be left to it.

The sacking manufactured by certain Indian mills suffer from some drawbacks and are sold at a small discount in world markets. These defects are not due to the admixture of mesta but are primarily due to a number of manufacturing defects viz., lack of uniform weaving, bad seeming and under-weight. We feel that the Government should watch the situation and if the voluntary efforts of the Indian Jute Mills Association do not succeed, steps should be taken to ensure the quality of our sackings.

We feel that it is not necessary to regulate the production of mesta in general. On the other hand, it appears desirable and necessary to give more attention to the production of mesta than has been done hitherto especially in areas other than West Bengal. It is also desirable to fix a separate target of mesta production.

The problem of replacement of jute by mesta, however, deserves consideration. This problem at present can be said to have assumed some significance in West Bengal. We are already short of jute and any encroachment of mesta on jute land should not ordinarily be encouraged.

The State Governments should encourage the production of mesta in those areas where the question of replacement of either paddy or jute does not arise. An illustrative list of such areas has been given by us but a

complete list will have to be prepared by each State Government separately.

If the quality of Bimli grown in Andhra Pradesh can be improved by better retting techniques, control of plant diseases etc., its production, in our view, may be further encouraged in the State of Andhra, particularly in Visakhapatnam, Srikakulam and Guntur areas.

As the transport cost to Calcutta from Mysore and Madras is high it will serve little purpose in increasing further the production of Bimlipatam jute in these States unless the mill industry expands there.

The production of mesta in Madhya Pradesh and Bombay can be increased only in those areas from where the fibre can be conveniently and economically transported to Calcutta. Any large scale production of mesta in these States does not seem to us to be economically feasible or desirable.

Adequate plant protection measures must be taken to protect *Hibiscus Cannabinus*, a variety of mesta, which is more susceptible to plant diseases. The Indian Central Jute Committee should intensify their plant protection measures for protecting the *Hibiscus Cannabinus* variety of Mesta from plant diseases and side by side improve the quality and strength of *Hibiscus Sabdariffa*.

We feel that the problem of jute prices is fundamental to the question of increasing the production and improving the quality of raw jute produced in the country.

For the fixation of minimum price of jute all the three criteria, viz., the cost of production of jute, the parity between prices of jute and paddy and the relationship between the prices of raw jute and jute goods need to be considered.

As far as the cost of production factor is concerned we think that the minimum price should cover the cost of production of jute in West Bengal as the bulk of jute is grown in this State and it is also proximate to the main consuming centre, Calcutta.

The reasonable parity between the prices of jute and paddy would, according to our calculations, be 2.7 to one or in other words 1.8 to one between jute and rice.

The fair price indicated, by the Jute Enquiry Commission on the basis of relationship between raw jute and jute goods prices was, in our view, an under-estimate to the extent of Rs. 4 to Rs. 6. The industry has in fact, been paying a higher price of raw jute, than indicated by the Jute Enquiry Commission's formula, and has been able to export more jute goods in recent years.

Besides the three main factors to be taken into account of determining the minimum price of jute to be guaranteed to the growers, the cost of transport from the up-country centres in a State to the main consuming centre Calcutta will also have to be considered and adjustments made accordingly.

In our view the mere announcement of the minimum prices should tone up the market and keep prices well above the minimum. In practice, therefore, the possibility of the Government being required to enter into the market for supporting the price is not likely to arise in the present circumstances.

The most effective method of supporting prices is through 'Buffer Stock Operations'. In case, it becomes necessary for the Government to support prices and a buffer stock is built up, we think that not more than two per cent of the raw jute and mesta will have to be bought by the Government at any time. This will require a working capital of about Rs. two crores.

There is very little possibility of incurring a loss in 'Buffer Stock Operations'. Even if some loss is incurred by way of storage charges, administrative expenses, wastage etc., the amount involved is unlikely to be more than Rs. four lakhs. This is not a large amount and can be treated as subsidy by the Government to the grower of jute.

The work relating to buffer stock operations can also be entrusted to a Cooperative Marketing Board or a Marketing Organisation of Trade or of Mills. The State can exercise supervision over such a body and if need arises may make good the loss it may suffer in the process.

An indirect method of ensuring minimum price is to lay down a Buying Programme for the Mills. In our view voluntary efforts of the Indian Jute Mills Association would serve this purpose and it may not be necessary for the Government to prescribe a buying programme statutorily.

If for various reasons it is not found feasible by the Government to fix statutorily minimum prices of jute, it is necessary, in our view, to calculate the minimum price every season and keep it in view so that if market prices fall below the minimum the Government may take one or more of the measures suggested by us.

We feel that if minimum price for rice is fixed in pursuance of the Government's announcement dated June 14, 1957, the fixation of minimum price for jute at a corresponding parity may become necessary.

The tendency of the mills to keep away from the market in India during the beginning of the season and to play between Indian and Pakistani markets in their own interest is borne out, to some extent, by the figures of purchases of raw jute by mills and stocks of raw jute with them.

The reasonable level of stocks of raw jute to be maintained by mills should, in our view, be about three months' requirements i.e., roughly about 15 lakh bales while the maximum stocks to be held at any particular time might be about four to five months' requirements.

In our view the tendency of the mills to keep away from the market at a time which is crucial to the culti-

vator is undesirable. We feel that about two to three months' stocks, i.e., roughly 10 to 15 lakh bales, ought to be built up by mills, particularly during the first five months of the season i.e., from July to November when most of the produce is marketed by our cultivators.

The long-term and more permanent solution of the problem of price support would be provided only by setting up a Government organisation or Cooperative Marketing Organisation which would buy jute from the cultivators at a reasonable rate at the harvest season and sell to the mills later at a competitive price.

We feel that it will be useful to popularise the use of Tamarind-water treatment of raw jute for improving the colour of shyamla jute grown in some parts of the country. This should, however, be done only when it is proved by research that the strength of the fibre is not weakened by the tamarind-water treatment. To begin with, this process may be tried in a few areas which grow shyamla jute. It will be useful if a pamphlet is prepared by the Indian Central Jute Committee giving the details of the Tamarind process and its advantages which may be distributed widely amongst cultivators growing shyamla or dark colour jute.

In our view the Ministry of Commerce and Industry should take up with the U.S. authorities the question of charging a higher import duty by U.S. on Hessian prepared out of bleached jute. It seems to involve unfair discrimination. In any case the tamarind water process should not be regarded as chemical treatment of the fabric and the goods prepared out of such jute should not be subjected to a higher customs duty.

Intensive cultivation of jute should be achieved by better manuring, improved seeds, improved cultural practices, control of pests and diseases. The efforts in this direction should be accelerated as much as possible.

Top-dressing of jute, which offers the best potentialities for the increase in production, should be taken up in right earnest by the State Governments.

The State Governments may utilise the help offered by the Indian Jute Mills Association and other jute interests for distributing pamphlets and popularising the use of fertilizers amongst cultivators.

Attempts should be made to procure adequate number of seed drills and wheel-hoes and distribute them to the cultivators as widely as possible.

In our view there is urgent need for intensifying plant protection measures for saving the huge loss which is caused by plant pests and diseases.

We suggest that the possibilities of setting up co-operative jute pressing and baling machines in producing centres should be explored so that the cultivator is able to get a better price of his produce.

We can hardly over-emphasise the urgent need for proper grading and standardisation of raw jute and

mesta in order to protect the cultivators from exploitation by traders and middlemen.

The displaced persons from East Pakistan have long experience of growing better quality jute and they know better retting techniques. We feel that if the displaced skilled persons are rehabilitated in important jute growing areas the quality of our jute will improve considerably.

The apathy on the part of the cultivators to improve the quality of the fibre is partly due to the fact that the premium paid for better grades of the fibre is not com-

mensurate with the time and labour involved. This state of affairs needs to be remedied.

We would suggest the establishment of Cooperative Marketing Societies which should go a long way in securing to the growers a fair price for their produce.

The importance of abundant supply of retting water for improving the quality of fibre is supreme. Every attempt should be made to renovate the existing retting tanks as well as to provide more retting tanks in important jute growing areas.

TECHNICAL COMMITTEE ON CEMENT, 1957—REPORT

Delhi, Manager of Publications, 1959. 58p.

Chairman : Shri K.C. Sood.

Members : Shri V.N. Pai; Shri S.L. Soni; Shri N.C. Roy; Shri Dwarka Prasad; Shri V.M. Rao; Sardar Sarup Singh; Shri M.S. Bhatia; Shri P.C. Hazra; Prof. G.S. Ramaswamy; Shri George Oommen; Shri C.B. Patel; Dr. R.R. Hatiangadi.

Secretary : Dr. S.P. Varma.

APPOINTMENT

The Government of India, taking cognizance of the acute shortage of cement in the country and the fact that the domestic demand was far in excess of indigenous production—necessitating, therefore, economy, in the use of cement and increasing its availability by all possible manners—appointed a Committee vide Resolution No. Cem-18(174)/56, dated March 23, 1957.

TERMS OF REFERENCE

(i) Investigate and report the availability of materials of pozzolanic nature in various parts of the country, particularly the ones found, close to either the cement-producing centres or where cement is to be consumed in bulk, i.e., dams, etc.;

(ii) Examine the feasibility of admixing such pozzolanic materials available in the country as do not adversely affect the properties of the ultimate mix vis-a-vis Portland Cement for specified jobs; the percentage of the pozzolanic mix as well as the stage at which the mixing should be effected;

(iii) Suggest suitable specifications of the pozzolan cement and suitable marking on the pozzolan cement bags;

(iv) Investigate the nature of blast furnace slags that would be available from the existing steel factories as

well as the newly-projected plants with reference to their suitability for manufacturing Blast Furnace Slag Portland Cement in accordance with the Indian Standards Specification No. IS. 455-1953;

(v) Examine the feasibility of using lower grade gypsum (80 per cent—85 per cent) as a retarder and use of other retarders to conserve gypsum;

(vi) Examine the prospects of manufacturing high alumina cement by fusing together limestone and bauxite; and

(vii) Investigate and report on such other matters as the Committee may think fit regarding the economy in the use of cement.

CONTENTS

Introductory; Acknowledgement; Present Position of the Cement Industry, Its Programme of Development, Actual Production and Estimated Demand; Pozzolans and Pozzolanic Cements; Blast Furnace Slag Cement; High Alumina Cements, Masonry Cements, Utilisation of Low Grade Gypsum; Adoption of Metric System, etc.; Summary; Government Resolution on the findings of the Committee; Appendices I to IV.

RECOMMENDATIONS

The Committee observed at the outset that although the position in regard to availability of cement had changed considerably from that of acute shortage to that of easy supply, this is only a temporary phase and that with the general rise in the tempo of developmental activities, demand for cement is certain to revive. The per capita consumption of cement is very low in this country as compared to its consumption in other countries. There is, therefore, scope for further expansion of

portland cement industry and for the development of pozzolanic and blast furnace slag cement.

Pozzolanic Cement

(i) There is a wide range of both natural and artificial pozzolanic materials available in the country, but their activity and suitability as pozzolanas needs to be investigated.

(ii) Before the pozzolanic materials are admixed with Portland Cement, it would be necessary to fix Indian Standard Specifications for such materials.

(iii) Pozzolanic cement is not a general purpose cement, but its use in mass masonry construction of dams, marine works etc. has been well established both in India and abroad. In addition, it can be beneficially used for certain specific jobs like Tunnel Lining and Foundations, piers and abutments of bridges etc.

(iv) Use of pozzolanas in the construction of dams should be made on a more extensive scale. The possibility of such use should invariably be examined before any new project is sanctioned.

(v) Mixing of pozzolanas may be done either at the site of the dam or at cement factories located close to the site, as well as in areas which are deficient in the production of portland cement but are close to the source of pozzolanas.

(vi) Unless the use of pozzolanic cement can be extended to the field of general construction, it would not be advisable to establish any regular capacity for its manufacture. Also in view of the present easy availability of cement, some caution would be necessary before any decision is taken to establish capacity for its manufacture. But the industry should be in a position to take up such manufacture, should a contingency arise, and investigations and steps necessary for this end, should not be postponed.

Blast Furnace Slag Cement

(i) Suitability of blast furnace slag for manufacture of portland cement seems to have been established in the case of slag available from the Mysore Iron and Steel Works and Tata Iron and Steel Companies. The schemes which are at present under implementation for utilisation of this slag in the manufacture of cement may be speedily

executed.

(ii) The possibility of the use of slag for manufacture of cement has also been kept in view while planning the lay-out of the three steel plants in the public sector. A granulation plant has already been designed in the case of Bhilai Steel Project.

(iii) The new cement factories, specially those near Iron and Steel Plants should provide for 50 per cent additional milling capacity, so as to take to manufacture of blended portland slag cement, whenever necessary.

(iv) Not all the available slag can be utilised for manufacture of cement and its use in the manufacture of slag wool, insulation products, construction of roads etc., should be investigated and encouraged.

Alumina Cement

Alumina cement disintegrates at a temperature of 25°C or 80°F and considering the climatic conditions in the country, it is not advisable to use it as a masonry cement.

Masonry Cement

The Central Building Research Institute should explore the possibilities of experimental production of masonry cement based on low grade limestone and rejects in the country.

Gypsum Used In The Manufacture Of Cement

In view of the overall short supply of good quality gypsum, the Central Building Research Institute should investigate the possibilities of using other materials as retarders in place of gypsum used in the manufacture of cement.

Other Recommendations

No practical difficulty is envisaged in the adoption of metric system by the cement industry.

To overcome the initial reluctance of the consumers to buy portland pozzolana or portland slag cement, it would be necessary to fix concessional price for these types of cement.

To ensure equitable distribution, it would be necessary to bring pozzolana cement under the purview of the Cement Control Order.

SELECTED BUILDINGS PROJECTS TEAM ON GRAIN STORAGE STRUCTURES, 1957—REPORT

New Delhi, Committee on Plan Projects, 1957. 7p., Maps & Charts.

Leader : Shri S.K. Patil.
Members : Sardar Sarup Singh; Dr. A. Carbone; Shri C.P. Malik.
Secretary : Shri T.S. Vedagiri.

APPOINTMENT

The Selected Buildings Projects Team on Grain Storage Structures was constituted under the Committee on Plan Projects at its meeting on March 29, 1957.

TERMS OF REFERENCE

For carrying out a study of the existing designs and specifications for the building of the grain godowns, with a view to evolving improved designs, which, while fulfilling the functions of efficient storage, would be more economical in cost and consumption of scarce materials, viz., steel and cement.

CONTENTS

Background; Existing Design; Observations and Recommendations; Cost and Material Analysis; Administrative and Other Arrangements for Implementation; Appendices I to III; Plates I to VI.

RECOMMENDATIONS

The grain godowns constructed by other agencies also follow the same design with slight modifications in the span of trusses and spacing of columns. Some States have constructed godowns of small capacity with masonry walls and vaulted roofing. Timber trusses have also been adopted for godowns of small width. Only in Punjab bulk storage of grain has been resorted to in a restricted way. Batteries of bunkers of the hexagonal pattern have been constructed at Sonepat, Ambala and a few other places.

Alternative Proposals

The Panel considered silos as one of the alternate means of efficient storage. But as the question of bulk storage was not acceptable to the Ministry of Food, the panel did not consider this in detail. However, some technical information on the problems of overhead and underground storage in silos has been obtained from our Ambassador in Argentina and more information is awaited. The Panel will be considering these in detail and make recommendations in due course regarding their adaptability in this country.

There are many other alternatives to the existing type

design for grain godowns but taking a practical view of the question the following three appear to be the feasible solutions:

(a) Specialised forms of timber trusses using secondary grades of timber.

(b) Prestressed concrete girders and rafters.

(c) Shell type of roofing.

The question of utilising timber trusses for the roofing of grain godowns was discussed by the Panel in detail with the officers of the Forest Research Institute at Dehra Dun. The design envisages the use of small Scantlings of secondary grades of timber as members of the truss with nailed joints. The timber used is properly seasoned and treated. Special connectors have been adopted for main joints in some cases. Trusses of spans upto 70 feet have been designed and a few have been erected at the Institute. The efficacy and life of the nailed joints when subject to varying weather conditions are some of the important factors on which further experimental research is necessary. This apart, the Panel understands that the shortage of timber for structural purposes is almost as great, if not greater, than that of steel.

Considering all these and the immediate necessity of putting up a large number of godowns for grain storage, the Panel is not inclined to recommend the adoption of timber trusses for grain godowns at this juncture. It must, however, be added that the development of different varieties of structural timber is an utmost necessity as it can be one of the major substitutes for steel in building construction.

The next alternative was the adoption of prestressed concrete girders, R.C.C. rafters and asbestos cement sheets for roofing. From the functional point of view it is desirable to space the columns as far apart as possible consistent with structural requirements.

The elimination of the central row of columns was also suggested in this connection to improve the manoeuvrability inside the godown. This gives rise to the problem of roofing over large spans with a meagre superimposed load.

Prestressed construction in this context was not found to be economical as the proportion of self weight of the structure to the super load will be too high for an economical design. Apart from this, there is the difficulty of getting the high tensile steel which will be required in large quantities for this purpose. Considering these factors the Panel ruled out the idea of prestressed constructions in this case.

The third alternative was the adoption of shell roofing. The development of shell structure is one of the outstanding achievements of the day resulting in wider and more economical use of reinforced concrete in large span construction. Its structural soundness is already well established. The amazing reduction of self weight achieved by the use of thin shells two to three inches in thickness assists also in reducing structural dimensions throughout the building resulting in all round saving of both space and material. Experience has shown that shell structures have great resistance to damage by bombs or fire owing to their monolithic construction. Engineering studies made after the recent earthquake at Mexico City have also revealed the resistance of thin membrane roofs to seismic forces. In Europe and other advanced countries this type of construction has gained great currency since the close of the Second World War. Shell roofing is not new to India. Many industrial and factory buildings with shell roof have been constructed recently. The performance of such roofs is also found to be very satisfactory.

Shell Type Design

After having decided that shell construction would be the suitable solution for the problems on hand, the Panel tried several types of shell and came to the conclusion that the barrel shell was the best.

The present plan envisages a unit of godown of 90 feet width and 70 feet length. One row of godown may consist of 4 or 5 such units. The shell roof for the godown is a continuous one with a double span of 35 feet each and a chord of 90 feet. The platform roofs are cantilevered from the main shell itself. This arrangement has a number of advantages:

(a) **Greater Flexibility:** The unrestricted floor space gives ample scope for easy arranging and rearranging of the stacks.

(b) **Better Lighting:** Better standard of lighting inside the godown can be obtained with lesser area of glazing in the roof.

(c) **Possibility of Reducing the Godown Space Required Per Ton of Storage:** The absence of any horizontal obstruction and the greater rise of the shell roof make more space available for stacking inside the godown. It may be possible to rearrange the stacks in such a way as to reduce the area of valuable godown space required per ton of storage.

(d) **Saving in Structural Steel:** The shell structure requires no structural steel. This is a significant advantage particularly with the present acute shortage of structural steel.

The Panel also suggests that further saving in steel can be obtained if the end frames of 90 feet span are prestressed. Modified designs for this are under way and

it may be possible to utilise this refinement also, if high tensile wire is available.

Design Features

The cylindrical shell has chord width of 90 feet and is supported by traverses at 35 feet intervals. In addition there are two cantilever slabs on either side, 10 feet and eight feet which are integrally connected to the shell.

The analysis of the cylindrical shell can conveniently be divided into two stages. The first part consists in treating the structure as statically determinate and calculating what are known as "Membrane Stresses". From the membrane analysis edge stresses in the nature of normal stresses, shear stresses and bending moments will be found to occur along the edges. But the stresses occurring along the edges found from the membrane analysis will not satisfy the actual boundary conditions that are known to exist along the edges. This means that a subsidiary system of stresses usually known as "Line Loads" will have to be applied along the edges so that the actual boundary conditions may be satisfied.

In accordance with usual practices secondary stresses of an insignificant character have been discarded in the analysis. The next step consists in superimposing the stresses by line loads on the membrane stresses.

The present design does not make any provision for the earthquake factor, but there is no difficulty in designing shell type roofs for safety in seismic areas.

Other Items Of Work

Important items of work involved in the construction of grain godowns were considered in detail and the conclusions arrived at in respect of each are detailed below:

(i) **Foundation:** The existing design shows that the foundations of the filler walls have been carried down to the same depth as the foundations of columns. This is difficult to justify. It appears that the foundation designs are not determined by detailed investigations of the site conditions and the applications of the latest principles of soil mechanics. Perhaps, the rule of thumb has been applied. It is very desirable that in future site investigations are carried out in advance and the designs drawn up accordingly. It will not only result in economy but there will also be greater confidence in the soundness of the structure.

(ii) **Plinth Height:** The present practice is to build the plinth upto the floor level of the wagons. With a formation depth of 1.5 feet this involves earth-filling to the extent of 5 feet. The earth has, in the majority of the cases, to be imported. The design therefore ordinarily proves expensive.

Examination has shown that it is unnecessary to keep the platform level at the floor level of the wagons. The platform height should therefore be kept as low as

possible subject to a minimum of one-and-a-half feet above the proposed formation level with a view to secure damp proofness of the floor. Each case must, however, be decided in relation to the site conditions.

To secure the maximum economy the user department should devise suitable portable sloping gangways for the loading and unloading of the bags by manual workers. It is considered that this should not present any unsurmountable difficulty.

(iii) Height of Walls: The shell type of roofing being free from any obstruction, the height of the external walls can be profitably lowered. A minimum clearance of 17.5 feet is required by the user. This, however, need not be provided at the extreme end of the godown and it should suffice if it is available at a distance of 2.5 feet from the inner face of the wall. This is agreed to by the Ministry of Food.

(iv) Thickness of Walls: The present practice is to keep the walls a brick-and-a-half thick, or $13\frac{1}{2}$ inches in the case of standard nine inches bricks. In the case of shell roof construction the walls have two functions to perform:

(a) To provide rigidity against wind pressure and rolling grain bags, and

(b) Protection against weather conditions. The question of reduction of the thickness has been considered, but in spite of the reduction in the height of the wall, as mentioned in (iii) above a thickness of nine inches would not be safe against wind load, and therefore, the present practice of keeping the wall $13\frac{1}{2}$ inches thick would have to be continued. Wherever, it can prove cheaper, the walls may be built in stone masonry 1.25 feet thick.

(v) Concrete Mix for Shell: The concrete for the shell structure is of nominal mix 1:2:4 but the present practice is to specify concrete by strength and not by mix. For work of this type of shell the ultimate cube strength of 3500 lbs. per sq. inch at 28 days is required. By proper grading of aggregates both fine and coarse and careful design of mix, it is possible to attain this strength with less cement. Adoption of discontinuous grading is suggested. It is also emphasised that the mix must be designed on the basis of aggregate size available and the nature of sand.

(vi) Flooring: The floor has to perform three functions:

- (a) damp proofness,
- (b) rigidity, and
- (c) durability.

It is considered that nine inches thick layer of pure sand, free from all deleterious materials, especially clay, or cinder, whichever is cheaper should be provided under the rigid part of the floors. Prior to sand or cinder filling, the earth filling under the floor must be properly stabilised in accordance with the modern practice; otherwise, there would be danger of settlement and cracks.

The top layer of the floor may consist of four inches lime or lean cement concrete 1:5:10 with two inches wearing surface of rich concrete 1:2:4 mixed with ironite or rockite.

This type of construction, it is considered, will meet the requirements of Fork Lift trucks of half-ton capacity — the usual size.

Where the sub-soil water level is within five feet of the prevailing ground level or conditions otherwise demand, a membrane of tar-felt or alkathene sheets, may be introduced between the sand and the top layer.

If it is difficult or expensive to obtain clean sand, two-coat treatment of bitumen at 50 lbs. per 100 sq. ft. should be given above the lean concrete course. In such cases, the thickness of the sand layer can be reduced to six inches.

(vii) Finish of Walls: For cleanliness it was considered necessary that the inside of the walls may be plastered and white-washed. The outside need only be pointed. Plastering is not necessary as the walls are fully protected by Chhajjas which form part of the shell roof.

(viii) Ventilation: Entry of fresh air is needed to keep grain in good condition, but during the monsoon period, it is necessary to shut out moisture, and therefore ventilators must be provided with shutters. The top ventilators should have wire gauze protection on the external side, and top hung shutters. The lower ventilators should have expanded metal protection outside and sliding shutters and wire gauze, on the inside.

(ix) Lighting: The proposed plan is considered satisfactory from the point of view of obtaining the required day light. It is estimated that the intensity of lighting at three feet above the floor level within the godown will be 20 lumens per sq. ft. which is very nearly the same as obtained in the conventional type godown. The internal covering should consist of reinforced glass.

(x) Platform Protection: To prevent damage to the platform by the backing of the transport vehicles, it should be provided with wooden fenders throughout backed by hard rubber packing at intervals.

SELECTED BUILDINGS PROJECTS TEAM ON SLUM CLEARANCE, 1957—REPORT

New Delhi, Committee on Plan Projects, Planning Commission, 1958.
79p.+Plates.

Leader : Shri S.K. Patil.

Members : Shri Sarup Singh; Dr. A. Carbone; Shri C.P. Malik.

Secretary : Shri T.S. Vedagiri.

APPOINTMENT

The Selected Buildings Projects Team on Slum Clearance was constituted under the Committee on Plan Projects, Planning Commission on March 31, 1957.

TERMS OF REFERENCE

To study the slum clearance schemes of Madras, Bombay, Mysore, U.P., and West Bengal with a view

(1) To find out the existing bottlenecks in the way of pushing forward the schemes with speed, economy and efficiency, and

(2) To recommend measures for the removal of such bottlenecks so as to expedite the execution of schemes already in hand and to smoothen the progress of similar schemes to be undertaken in subsequent years.

CONTENTS

Introduction; Basic Issues; Definition of Slum and Magnitude of Slum Clearance Problem; Slum Prevention; Rehabilitation of Sub-standard Buildings; Slum Improvement and Slum Service; Slum Clearance Schemes, Reducing Cost of Construction; Summary of Recommendations; Appendices I to IV, Plates I to III.

RECOMMENDATIONS

Basic Issues

A Statutory Corporation should be created in every State for implementing the slum clearance programmes included in the Plan.

A Housing Corporation should be created at the Centre and all the State Corporations should be subsidiaries to the same.

The financial assistance by the Central Government should be given at the time of the commencement of the land acquisition proceedings or the local bodies must be exempted from paying the compensation in advance.

Minor matters of detail should be settled by discussion at personal level instead of through repeated correspondence.

Definition Of Slum And Magnitude Of Slum Clearance Problem

A comprehensive definition of a "slum" should be framed by the Government of India.

Slum Prevention

No licences to start new industries or for expansion of the existing industries should be granted by the Central Government unless a "no objection" certificate is produced from the local body.

Studies and research in "product design" should be encouraged with a view to evolve gadgets of common use which can be prepared from the locally available materials without the aid of any big machinery.

A Master Plan should be prepared for each city as a positive measure for slum prevention.

The Municipalities should be given assistance financial as well as technical by the State Government for the preparation of the Master Plan.

The Central Government should make available a "Model Town Planning Legislation" on the basis of which the States can enact their own Town Planning Legislation.

The rent control Acts of different States should be examined with a view to exempt from their application buildings which have finished their useful life, old buildings which are in a bad state of repairs and buildings which are substandard but which can be improved for rehabilitation at a reasonable cost.

Rehabilitation Of Sub-standard Buildings

Permanent allotments may be made in the yearly budgets of the municipalities for slum servicing and improvement of sub-standard housing and that a regular Five-Year Plan may be drawn up by each municipality to deal with this problem.

The municipalities should adopt a Housing Code which would go a long way towards prevention of blight as its enforcement would help in maintaining the existing buildings in good state of repairs.

Slum Improvement And Slum Service

In case the owner fails to carry out improvements where this is feasible, the local authority should be empowered by suitable legislation to carry out these

improvements and recover the money spent on improvements.

Slum Clearance

A critical study of the various Slum Clearance Acts should be made by a Special Committee which can then formulate a "Model Slum Clearance Legislature" for the guidance of all States.

The acquisition and development of land on a large scale for housing purposes by the proposed Housing Corporation would ensure the speedy execution of slum clearance schemes.

Encouragement should be given to building societies and cooperative housing societies to step up the progress of new housing.

A proper budgeting for materials is of prime impor-

tance for the drawing up of housing schemes on a realistic basis.

The manufacture of clay tiles must be studied at different places in India where good clay is available.

The technique of pre-fabrication of cement concrete units should be further explored in this country.

All possible steps should be taken to utilise secondary species of timber for structural purposes in order to ensure thereby saving of steel and cement.

The municipalities, who have not revised their building bye-laws for a long-time, should revise them now on the lines of the model bye-laws evolved by the Indian Standards Institution.

"Dormitory accommodation" for displaced slum dwellers (who live in the city without their families) should be constructed.

HIGH LEVEL COMMITTEE ON FLOODS, 1957—REPORT

New Delhi, Ministry of Irrigation and Power, 1957. 189p., Charts.

Chairman : Shri A.C. Mitra.

Members : Shri B.S. Nag; Shri C.R. Ranganathan (not joined); Shri N.P. Mohan (resigned); Shri M.P. Mathrani; One or two Foreign Experts (Shri H.E. Hedger).

Secretary : Shri R.D. Dhir (replaced by Shri B.S. Nag).

APPOINTMENT

In order to have an adequate assessment of the flood problem in the country and also an authoritative advice on the measures that should be taken to tackle it, the Government of India decided *vide* Ministry of Irrigation and Power Resolution No. DW.V. 530(1)/56, dated April 12, 1957, to set up a Committee to go into the entire question on the basis of the available data.

TERMS OF REFERENCE

(a) To analyse the factors responsible for a succession of heavy floods in the Ganga and the Brahmaputra basins in the recent years and to indicate, in a general way, after an examination of the hydrological and other relevant data available, the lines on which the flood problems in the various areas should be tackled.

(b) To review the measures undertaken in the last two years to combat floods and to indicate the lines on which work should be proceeded in future both in regard to the construction of flood protection works and in regard to the collection of data for the formulation of long-term flood measures.

(c) To lay down principles for the fixation of priorities in the construction of flood protection works.

(d) To examine specific flood problems of an acute character from States like Andhra, Orissa and the Punjab and to indicate the lines on which they should be tackled.

(e) To report on the circumstances in which embankments can be considered as a suitable method of flood protection.

(f) Any other recommendations bearing on the control of and mitigation of damage by floods.

CONTENTS

Letter of Transmittal; The Nature of Flood Problem in India; A Brief Resume of Past Efforts in Flood Control; Flood Damage in India; The Place of Flood Control in Five-Year Plans; Embankments as a Method of Flood Protection; Other Methods of Controlling Floods or Reducing Flood Losses; Soil Conservation; Principles for the Fixation of Priorities of Flood Control Measures; An Analysis of Factors Responsible for a Succession of Heavy Floods in the Ganga and Brahmaputra Basins in Recent Years; Organisational Aspects; Summary; Recommendations; Statement of Mr. H.E. Hedger, Chief Engineer, Los Angeles County Flood Control District, Flood Control Consultant, Technical Cooperation Mission to India; Appendices A to K; Tables I to 16; Figures I to 12.

RECOMMENDATIONS

Absolute or permanent immunity from flood damage

is not physically attainable by known methods of flood control. Flood plain zoning, flood forecasting and warning, and like measures should therefore be given due importance, particularly as these do not require large capital investment.

There is lack of precision in flood damage data. The techniques of assessment and reporting flood damage should be improved to make the estimates of damage realistic.

For purposes of economic justification of flood control schemes, it is not necessary to collect daily and weekly information about flood damage, and this might be discontinued. The annual flood damage data under various heads should, however, continue to be collected and reported.

Damage to engineering works pertaining to irrigation, power, and flood control should be reported by Flood Control Organisations of the States to the Union Ministry of Irrigation and Power, and the data collected by other State Departments to the concerned Union Ministry. Copy of all this information should be furnished by the various State Departments to the Flood Control Department of the State. At the Centre all the flood damage information should be made available to the Central Water and Power Commission, by the various Ministries.

The Ministry of Home Affairs, in consultation with other concerned Ministries, may prescribe standards for assessing damage and lay down proformas for collection and reporting of relevant data.

Flood control schemes should fit in with plans for other water resource developments such as irrigation, power, domestic water supply, etc. to the extent feasible.

In multi-purpose projects, care should be taken to ensure that the flood control aspect is not allowed to lose its due importance in the operational stage.

In considering future plans, the flood control aspect of a multi-purpose project should be considered simultaneously with other aspects and financial allocations made for all the aspects at the same time.

Where a delta is extending rapidly, the lower reaches of the river should not be embanked as otherwise the rising flood levels would perpetuate the problems of drainage and waterlogging in the adjoining areas. Similarly, premature embanking of freshly formed lands at the deltas must be avoided.

The flood-moderating effect of the various reservoirs recently constructed or under construction on the tributaries of the Ganga would, more or less, offset any increase in flood peaks caused by the embankments already constructed or planned to be constructed in the current Five-Year Plan.

The extent of rise in the flood heights as a result of embankments on the Brahmaputra already constructed or planned to be constructed during the current Five-

Year Plan would be small because of the great width of the river and the small valley storage as compared with large channel storage.

Embankments as proposed on the Ganga and the Brahmaputra river systems for construction during the current Plan period may, therefore, be completed without apprehension of adverse effects.

Proposals for constructing flood embankments which State Governments may have in view for inclusion in the third and subsequent five-year plans, should be studied in detail to determine their effect on the river basin before these schemes are accepted for inclusion in the plan.

In general, embankments are satisfactory means of flood protection when properly designed, satisfactorily executed and adequately maintained in localities where the construction of embankments is technically indicated but a suitable combination of this method with other methods such as storage dams, detention basins, etc., is usually more efficient and should be adopted as resources permit.

When it is not economically possible to preclude floods in certain areas, raising of habitations or other important places may be resorted to in order to prevent damage to property and inconvenience to inhabitants.

Priorities for soil conservation work relative to flood control should be as under:

- (i) Catchment areas of the multi-purpose dams;
- (ii) Himalayas with their foot hills;
- (iii) Indo-Gangetic plain; and
- (iv) Deccan plateau.

In order to increase the tempo of soil conservation work relating to flood control, watersheds should be arranged in order of priorities and detailed schemes should be prepared for such works which require immediate treatment. Work commenced in a catchment should not be left incomplete to take up work in other catchments.

Soil Conservation Organisation in the States should be strengthened. There should be a unified authority and responsibility for soil conservation work. Also the State Governments should arm themselves with the necessary legal authority for evolution and execution of soil conservation schemes.

Priorities amongst flood control schemes must be decided by taking an integrated view of the various considerations involved, the human and social aspect receiving its due emphasis. The following order of priorities in general is recommended:

- (i) Emergent Schemes;
- (ii) Continuing Schemes;
- (iii) Schemes for the protection of important urban and industrial communities;
- (iv) Schemes which would help in augmenting food production in the country;

(v) Schemes which combine other beneficial utilisation of waters.

In the matter of investigations necessary for the preparation of master plans, the same pattern of priorities should be adopted as for the execution of the schemes.

The priorities for schemes proposed for execution during the current Plan, as also those in the master plans already prepared, should be reviewed and appropriate priorities reallocated.

Priorities should be reviewed from time to time as the factors which go to determine priorities change with time.

Several of the functions allotted to the State Technical Advisory Committees, State Flood Control Boards, River Commissions and the Central Flood Control

Board are overlapping. Some of these cannot appropriately be performed by the Organisation to which they are entrusted at present. Modifications in these functions have been suggested in the Report and may be adopted.

In each State, having serious flood problems, requiring extensive flood control measures, there should be a separate Planning Unit, headed preferably by a Senior Superintending Engineer to formulate the various schemes and to prepare an integrated Outline Plan.

All soil conservation schemes requiring Central loan assistance should normally be submitted by the States to the Central Soil Conservation Board for vetting and approval. That Board should obtain the concurrence of other Central Departments if the cost of the schemes is to be shared with them.

COAL PRICE REVISION COMMITTEE ON THE BENGAL-BIHAR COALFIELDS AND THE OUTLYING COALFIELDS (OTHER THAN ASSAM AND ANDHRA PRADESH), 1957—REPORT

Delhi, Manager of Publications, 1959. 56p.

Chairman : Shri S. Bhoothalingam.
Members : Shri P.M. Menon; Shri S.R. Kaiwar (ceased his membership); Shri V. Narayanan; Shri S.R. Kalyanaraman; Shri P.M. Nayak; Shri N.S. Mani.

Secretary : Shri Chhedi Lal.

APPOINTMENT

The Coal Price Revision Committee was constituted under the Ministry of Steel, Mines and Fuel vide their Memorandum No. 12/9/57-CI, dated May 3, 1957.

TERMS OF REFERENCE

(i) To examine and report upon the cost of production of coal/coke in the country taking into account, *inter alia*, the awards and other relevant factors that have a bearing on the coal production programme envisaged in the Second Five-Year Plan;

(ii) On the basis of such investigation to recommend whether, and if so, what changes are necessary in the price structure of coal and coke; and

(iii) To consider and to report on the impact of the price changes recommended by the Committee on the economy of the country and on industry generally.

CONTENTS

Preliminary; History of Coal Prices in India; Our

Broad Lines of Investigation; Analysis of Cost Data and Our Conclusions for the Bengal-Bihar Coalfields; "Fixed" Prices versus "Ceiling" Prices for Coal; Outlying Fields other than Assam and Andhra Pradesh; Conclusion; Appendices I and II.

RECOMMENDATIONS

Analysis Of Cost Data And Our Conclusions For The Bengal-Bihar Coalfields

We have carefully considered the reports submitted by the Cost Accounts Officers. We think that for a general appreciation of the cost structure, the report for Bengal-Bihar fields should be treated as providing the basic data, as these fields produce about 80 per cent of the total output of coal in India. While several basic factors in the structure would be equally applicable to the outlying fields of Madhya Pradesh, Bombay and Orissa, these latter fields would require separate treatment because the coals there are not yet graded and the Committee was called upon to examine the question of introducing grading and to recommend prices accordingly. These fields have, therefore, been dealt with in a separate chapter.

The collieries in Assam are, again, a class apart, and we propose dealing with them in a supplementary report. The collieries in Andhra Pradesh also appear to stand in

a class by themselves, although not necessarily for the same reasons.

A preliminary examination of the data furnished by the Cost Accounts Officers revealed wide variations in the same elements of cost even among collieries in the same field. In many cases an explanation for these variations was not apparent. It is no doubt true that in any industry there would be variations which are not clearly attributable to obvious reasons. But, in a general way, it should normally be possible to indicate, even if only broadly, the kind of variations which are due to factors beyond the control of the management and the kind of variations which have resulted from differences in methods of management and from varying degrees of efficiency achieved. We also found considerable variations in the output-per-manshift (OMS) even among collieries having more or less similar conditions of working. The cases where these variations could be explained were relatively few. We felt, therefore, that the easy course of striking averages would not be appropriate, even though the representatives of the industry had themselves told us that the collieries selected for cost examination were on the whole representative of the Bengal-Bihar coalfields. If averages are thus to be used, we asked ourselves how the cost data available could be better utilised to yield a more appropriate method. For this purpose we thought that a technical examination, designed to show why actual costs varied so widely, would be useful. We, therefore, requested Shri A.B. Guha, Coal Mining Adviser to the Department of Mines and Fuel (Ministry of Steel, Mines and Fuel), and Shri S.G. Krishnan, Chief Mining Adviser to the Railways, to undertake the technical examination. They were also given the assistance of a Cost Accounts Officer. This team visited the following collieries in June 1958:

- (a) New Jinagara
- (b) Busserya
- (c) Loyabad
- (d) Katras
- (e) Bhanora
- (f) Girimint
- (g) Dhemo Main

Jharia Coalfield

Raniganj coalfield

These collieries were chosen as typical of those which showed wide variations in such elements as labour costs, incidence of sand stowing, internal consumption of coal and overall working costs in relation to size and output. In particular, the Katras colliery was chosen because one of the seams had been leased to another company and we thought a study of two units working under almost similar conditions would be worthwhile. In order to get a clearer idea of the efforts of mechanisation in deep working conditions, the technical team was also requested to study the Girimint colliery, although it had not been initially chosen for costing.

The technical team gave us their report in the third week of June 1958. The report covered such factors as nature and depth of seams, geological conditions, presence of water and gas underneath, condition of roof, need for timbering and the extent of mechanisation.

After a re-examination of the cost data in the light of the report of the technical team, we were reinforced in our preliminary conclusion that the computation of costs by the method of averaging would definitely be inappropriate. We felt that it would be more appropriate to attempt an assessment of what might be regarded as "normal" for each main item of cost; in other words, that a mere examination of costs actually incurred by various collieries would not be enough and the objective should rather be to determine, by a study and comparison of actual costs, the cost of production, as it should be, in a colliery managed with reasonable efficiency and economy and facing no problems of special difficulty. In making such an assessment, we considered that along with the conditions which actually prevailed during the period of costing, it would be equally necessary to take note of later trends of production and development and the conditions necessary to achieve the target of production set for the Second Five-Year Plan. Expressed in a different way, the concept of "normal" should relate to a colliery working with reasonable efficiency and economy not only to maintain production but also to expand production at the rate envisaged under the Plan.

In the light of the considerations set out in the preceding paragraph we now proceed to assess the "normal" costs under the following heads:—

- (1) Wages.
- (2) Provision of labour amenities and implementation of the Coal Mines Regulations.
- (3) Salaries and expenses on administration.
- (4) Cost of stores.
- (5) Cost of power, royalties, cesses, collieries' own consumption of coal and other "miscellaneous items".
- (6) Depreciation.
- (7) Brokerage and Commission.

Wages

Wages constitute the largest single element in the cost of raising coal. As stated earlier, our cost examination related to the period immediately after the Majumdar Award but before the Appellate Award was implemented.

Of the 27 collieries costed on our behalf, the wage element in one major unit could not be ascertained as coal raising was entrusted to contractors on a lump sum, including all charges except depreciation and expenses on administration. The cost data furnished by the other 26 collieries revealed a wage cost per ton ranging from Rs. 6.70 to Rs. 13.99. Among these collieries, the O.M.S. ranged from 0.23 to 0.58. These wide variations

naturally called for some explanation. We have carefully examined the variations but are unable to isolate the specific reasons for the variations. We notice, for example, that the level of production in the colliery which showed the highest wage cost is not very different from the level of production in the colliery which showed the lowest: there are also no obvious differences in working conditions which might account for the large difference in wage cost. On the other hand, 14 out of the 26 collieries, which account for 50 per cent of the total production of the 26 collieries, show a wage cost which is less than Rs. 10 per ton and two-thirds of these, again, show a figure of less than Rs. nine per ton. Eighteen out of the 26 collieries constitute a broad cross-section showing a relatively narrow range of variation in the wage cost per ton. We consider that this cross section affords, under the circumstances, the most reasonable guide for determining the "normal" wage cost. In this group of 18, the figure of Rs. 9.50 per ton appears to be the most representative. Actually, seven out of the 18 show a figure of less than Rs. 9.50 per ton. Another five collieries, not in the central group of 18, also show a wage cost of less than Rs. 9.50. It is true that eight out of the 26 collieries fall in that category in which the cost is higher than in the central group. Two of the collieries in this group have been studied by the technical team. In one case the higher cost has been attributed to higher lead and lift in one of the inclines. But this incline is nearly exhausted and the cost in the remaining portion of the colliery falls within the central range. In the second case, the higher cost is attributed to fall in production from the principal seam which is nearing exhaustion, the opening of a new seam and the gassy nature of the mine. Because of these difficulties, it is not possible, in the opinion of the technical team, to increase the output-per-man shift or to reduce wage costs in this mine. Yet, the quality of the coal is high and one could well regard the continuance of production as essential. These two illustrations will show that without an individual examination of the special problem of each mine it is not possible to say to what extent the higher costs are inevitable and to what extent they are capable of reduction by better management. We consider, therefore, that to the extent there are inherent difficulties, some special treatment will have to be provided for in the case of mines from which continuance of production is necessary in the national interest. We do not think it appropriate to take these special factors into account in assessing the "normal" cost structure. Later in this chapter, we are making our recommendations how these special or exceptional cases may be treated. If these recommendations are accepted, we consider that Rs. 9.50 per ton, suitably adjusted as indicated in the succeeding paragraph, should be regarded as the "normal" wage cost.

As we have stated earlier, the cost examination of collieries related to the period July 1956 to March 1957—a period during which the Majumdar Award was in force but the Appellate Award had not been implemented. The assessment of wage cost, as made in the previous paragraph, will, therefore, have to be increased to provide for the incidence of the Appellate Award. At first sight, it would appear that the simplest way of ascertaining this incidence would be by a further examination of the cost during a period in which the Appellate Award was in force. Such further examination would have caused delay. This delay would have been worthwhile, were one certain that a further examination would make possible a precise and accurate assessment. But the observations which we have made regarding variations in the wage cost as a whole would equally apply to changes in the wage cost caused in different collieries by the implementation of the Appellate Award. In our opinion, therefore, a theoretical calculation of the effect of the Appellate Award on the basis that Rs. 9.50 per ton represents the wage cost of a normal composite labour force, would give results as satisfying as by any other method. We have adopted this method; and, in our judgment, the incidence of the Appellate Award may be assessed at Rs. 1.10 per ton for purposes of price fixation.

The wage cost of coal is directly linked with the output-per-man-shift. Other things remaining equal, any increase in the O.M.S. must involve a proportionate decrease in the cost per ton. But what determines the O.M.S. is not merely the physical effort of the individual worker; the ways in which work is facilitated by mechanisation, provision of adequate arrangements for the conveyance of coal etc., too, have a great bearing on the output-per-man-shift. There is no doubt whatever that over the years, the O.M.S. in the coalfields of India has been gradually increasing. The average O.M.S. in the 26 collieries of the Bengal-Bihar coalfields which have been costed, comes to 0.36 ton. A comparison with the average O.M.S. of all collieries in Bengal-Bihar and all collieries in India is interesting. The figures for 1956 and 1957 for the three main coalfields in Bengal-Bihar are as follows:

	1956	1957
Jharia	0.39	0.40
Raniganj	0.39	0.42
Karanpura	0.37	0.41

The all-India average for 1956 and 1957 was 0.39 and 0.41 respectively. The trend is, therefore, unmistakable. From later paragraphs dealing with other items of cost, it would be seen that we are making adequate provision for elements which would directly or indirectly help to increase the O.M.S. If, as we expect, the price structure recommended by us would have to be maintained for a period of years, subject only to provisions for certain escalations on known variations,

note has to be taken of the increasing trend of the O.M.S. while determining the present wage cost. In the circumstances we regard an O.M.S. of 0.40 ton as fair and reasonable. It would be observed that several collieries among those costed had achieved this output even during the costing period. We consider that other collieries, too, in conditions of reasonable efficiency of working, should be able to attain this rate of output, if not more. On the basis of an O.M.S. of 0.40 ton, the "normal" wage cost (Rs. 9.50 plus Rs. 1.10) would stand adjusted at Rs. 9.55 per ton.

Provision Of Labour Amenities And Implementation Of The Coal Mines Regulation

We consider it necessary to assess separately the element required to enable collieries to fulfil adequately their obligations in regard to labour amenities and the implementation of the various Coal Mines Regulations. The amenities provided to labour by collieries have varied widely from region to region and even among collieries within the same region. Some of these amenities were provided voluntarily and others under various statutory requirements. The Mines Rules of 1955 not only codified these obligations but enlarged them. The Temporary Mines Regulations of 1955, which have now been replaced by the Coal Mines Regulations, 1957, have imposed further obligations on the employers. It has been claimed that the cost of providing these facilities would be considerable. The industry's estimate of the cost ranges from Rs. 1.09 to Rs. 3.23 per ton. Because of the importance of ensuring speedy and adequate implementation of these measures, we consider that there should be no excuse for any one to urge that the cost structure does not make it possible for him to do so. This is the main reason why, as stated earlier, we regard it necessary to isolate this element. Unfortunately, the cost data provide very little guidance in this matter. The accounts maintained by the collieries do not specifically exhibit these items of expenditure separately. The Cost Accounts Officers have, therefore, found it very difficult to isolate what has actually been spent, although we know that expenditure is being incurred by most collieries and a few of them are actually doing even more than what is statutorily required. Further, the implementation of the new regulations of 1957 is far from complete. We have, therefore, to rely mainly on observation, discussion and judgement in assessing the cost of this element. In this connection, we have consulted the Chief Inspector of Mines, who is primarily responsible for enforcing these regulations. Taking all factors into account, we consider that the cost structure should include an element of Rs. 1.10 on this account.

Salaries And Expenses On Administration

The head 'salaries and administration' includes the

cost of clerical and supervisory staff and other expenses of administration both in the colliery offices and the head offices in Calcutta or other big towns. One would expect that these expenses would bear some recognisable relationship to total output or the number of employees. But the figures compiled by the Cost Accounts Officers do not reveal any clear relationship. Thus, there are large units in the Bengal-Bihar area (producing from 16,000 to 18,000 tons per month) which show a cost ranging from Rs. 1.38 to Rs. 1.60 per ton. But there are other comparatively smaller units which show a cost ranging from Rs. 2.17 to Rs. 3.24. There are again others which show a cost of less than Re. one per ton. These variations, to some extent, may be attributable to the differences in methods of accounting pattern and procedure. In our judgement an element of Rs. 1.70 per ton would be adequate and reasonable.

Stores

Both in written memoranda submitted by them and in discussions with us, the representatives of the industry have laid great stress on the increases that had taken place in the cost of plant, machinery, spares and other stores. We have pointed out earlier that revisions of coal prices during the last ten years were mainly on account of increase in labour costs. It is an undoubted fact that the cost of machinery, spares and other stores have increased considerably since 1947. The industry's estimate is that as compared to 1947, there has been an average increase of 75 per cent in the cost of stores resulting in an increase in the stores cost, ranging from Annas 14 to Rs. 1-4-0 per ton. One would infer from this that in view of the industry the stores cost in 1947 would have been of the order of Rs. 1-8-0 per ton and the actual cost today would be in the range of Rs. 2-8-0 per ton. We agree that the prices of the various stores used by the industry, e.g., kerosene, timber, explosives, iron and steel, cement, etc., have increased considerably since 1947. But we feel that there is no purpose in trying to evaluate what the stores cost was in 1947. The cost examination (relating to the period July 1956 to March 1957) reveals a stores cost ranging from Rs. 0.59 to Rs. 2.76 per ton. We would, however, observe in this connection that the accounts of the collieries costed have not been kept in a way which makes it easy to isolate this element. This might account partly for the variations. It is difficult to be anything like dogmatic on this matter as the nature and amount of stores necessary would vary according to the conditions prevailing in each colliery. Having regard to all factors, and taking note in particular of the tendency for increased mechanisation, which we consider desirable in the interests of production, and allowing for the increase in prices since the period of costing, we consider that this element could be reasonably assessed at Rs. 1.75 per ton.

Cost On Power, Collieries' Own Consumption Of Coal, Royalty, Cess And Miscellaneous Items

In these elements variations are very wide. Royalty varies according to the terms of the leases. Pre 1949 leases are not governed by the uniform rate prescribed under the Mineral Concession Rules, 1949. The element of royalty ranges from Rs. 0.01 to Rs. 1.18 per ton. Similarly, cesses which are local levies, vary from State to State and even from district to district. The cost per ton under this head, therefore, varies from Rs. 0.03 to Rs. 0.26 per ton. Under the head 'miscellaneous', the variations range from Rs. 0.13 to Rs. 1.00. This element comprises expenditure on such items as stationery, printing, postage, insurance, legal charges and travelling allowances. The few instances below would show that expenditure on these items is perhaps unduly high in relation to raisings:

Colliery	Raisings per month	Cost per ton on "Misc." items	Total Cost per month
		Rs.	Rs.
Colliery A	5,000 tons	1.00	5,000
Colliery B	18,000 ,	0.94	16,920
Colliery C	2,200 ,	0.80	1,760
Colliery D	10,000 ,	0.74	7,400

The most widely spread variations are, however, found in the cost of power and collieries' own consumption of coal. To a certain extent, these elements are related. Many collieries use their own coal to generate power. Certain quantities of coal are also issued to workers, the quantity differing according to local practices. Hardly any colliery maintains a correct account of the quantity of coal consumed in boilers or issued to workers. In many cases, only rejects are issued to the workers.

The only practical way of dealing with these widely varying figures is to lay down an amount which should broadly be sufficient for an average colliery. We assess this amount at Rs. 1.85 per ton.

Depreciation

In their memoranda, and during discussions with us, the representatives of the industry have made a strong plea for an adequate element in the price of coal to provide for depreciation and rehabilitation of plant and machinery. They say that investments in the coal industry were made at a time when prices were much lower than they are today and the cost of replacing the assets would be much higher under present conditions. It has also been urged that, as in the case of some other industries, the price should specifically include an element which would enable the industry to have some

internal resources which could be utilised for further development. We think there is force in this argument. In our opinion the price structure should be such as would enable the industry not only to keep the plant and equipment in efficient functioning, but also to permit of further development. In this context, the amount that is admissible for income-tax purposes—which is based generally on the written down value of the plant and other fixed assets from time to time—is not really relevant. We think that the factors which do have a bearing on this question are the capital employed in the industry, the requirements for maintaining existing assets in efficient condition and the likely cost of further development. We find that at the beginning of the Second Plan period the capital employed in the private sector of the coal industry was approximately Rs. 14 per ton of production. At that time, production in the private sector was running at a level of about 35 million tons per annum. According to the target prescribed under the Second Plan, the production in the private sector should go up to about 45 million tons in 1961. For achieving this increase in production, the establishment of new collieries in entirely new areas is not contemplated under the policy laid down by Government. The development envisaged in the private sector will thus be by increase of production in the existing collieries and by opening of areas immediately contiguous to the existing mines. The capital required for expansion of production through existing units and development of immediately contiguous areas will naturally be less than what would be required for opening up entirely new areas. We have carefully considered the matter in the light of such information as we have regarding the cost of expansion under varying conditions and we estimate that on the average the additional capital required for expanding production in the manner envisaged for the private sector would be about Rs. 20 per ton. On this basis, the total capital employed (including new investment for additional production) by the industry after attaining the target of output of 45 million tons would be Rs. 690 million (i.e. $35 \times 14 + 10 \times 20$). The average capital employed per ton of coal would, therefore, be about Rs. 16 which we think should be taken as the basis for determining a suitable depreciation allowance. We consider that in determining this allowance some special provision should be made for development. In our opinion, the best way to do so would be to relate it to the development for which provision exists in the present tax structure. In one sense, the development rebate of 25 per cent available in the present tax structure really means that over a period corresponding to the useful life of the assets concerned, the industry would be enabled to recoup 125 per cent of the initial value of the assets. Following the same principle, we consider that the allowance for depreciation and development

should be equal to the average capital employed (about Rs. 16 per ton) plus 25 per cent of that capital divided by the average useful life of the complex of assets of different kinds constituting an average colliery. Buildings, water supply arrangements and such like assets have a relatively longer period of useful life. On the other hand, there are many types of machinery and equipment which have a shorter period of life. Items like earth-moving machinery and haulage equipment have a period of life even shorter. Taking all factors into account, we consider that on an average the capital investment in a coal mine might be taken to have a useful life of 12 years. On this basis, we regard that the depreciation and development allowance should be Rs. 1.70 per ton.

Brokerage And Commission

Under the Colliery Control Order, a brokerage not exceeding 37 naye paise per ton may be paid by the colliery owner to the broker. Collieries also incur some expenses on their sales organisation. The cost examination has revealed that, barring a few exceptions, hardly any colliery pays the maximum brokerage and commission. Of the 27 collieries costed, in 19 the overall expenditure under this head ranged from nil to 27 naye paise per ton. It is also significant that no brokerage or commission is permissible in direct sales to Railways which take about a-third of the total production in the country. We therefore consider that for purposes of the cost structure, an allowance of 25 naye paise would be adequate.

Recoveries

In assessing the ultimate cost, a deduction of Rs. 0.14 was made by the Cost Accounts Officers on account of the average recoveries which the collieries generally make. These pertain to receipts from sale of miscellaneous items such as slack and rejected coal, payments received from contractors, house rent recovery etc. The data in respect of the 26 costed collieries in Bengal and Bihar, however, show that this is a very variable item, which depends on certain factors peculiar to individual units. There are numerous units which do not make any "recovery" at all. We would prefer to ignore this element altogether.

To sum up, the cost structure on the basis of an O.M.S. of 0.40 would be as follows:

Items	Cost per ton Rs.
Wages	9.55
Labour amenities and Coal Mines Regulations	1.10
Salaries and administration	1.70
Stores	1.75

Power, Royalty, Cess, Collieries' own consumption of coal and other 'miscellaneous' items	1.85
Depreciation	1.70
Brokerage and Commission	0.25
	17.90

(It will be observed that no allowance has been made for stowing.)

Profit

We shall now consider what would be the fair margin of profit for an average colliery. Obviously, the price fixed should enable an average colliery working under conditions of reasonable efficiency to earn profits sufficient to permit payment of a reasonable dividend after payment of taxes. A rough and ready method which has proved generally fair and satisfactory, and which is also the simplest, is to relate profits to the capital employed or to the cost of production. Taking both these factors into account, we consider that a profit of Rs. 1.75 per ton would be reasonable. This would represent approximately 11 per cent of the capital employed (Rs. 16 per ton) and nearly 10 per cent of the cost of production. At first sight this might appear only just adequate and not sufficiently attractive for new investments in the industry. We would, however, point out that, in computing the normal cost of production, we have already included under the head 'Depreciation and Development' an element for the creation of internal resources, for development.

Revision Of Prices

It would thus be seen that the object of revision of prices should be to ensure an average sales realisation of Rs. 19.65 per ton (normal cost of Rs. 17.90 plus a profit of Rs. 1.75). It is, therefore, necessary to consider what the average sales realisation is at current prices. For this purpose, we propose to follow the pattern of production in 1957 in the Bengal-Bihar area, ignoring the production of Grade III coal for the reasons given later in the report. In 1957, production grade-wise (excluding Grade III) was as follows:

Selected A ...	24 per cent
Selected B ...	" 33 "
Grade I ...	26 "
Grade II ...	17 "

Each grade has again two different prices according to the size of coal. Run-of-mine and slack coal are in one group, while steam and rubble form another group. Between these two groups, the proportion is approximately 40 per cent and 60 per cent respectively.

The average price for each grade on this basis works out as follows:

Selected A	...	Rs. 20.46
Selected B	...	Rs. 19.46
Grade I	...	Rs. 18.58
Grade II	...	Rs. 17.45

(The price is exclusive of the increase of Rs. 0.75 given in May, 1958.)

Taking the weighted average of raisings of various grades as quoted above, the gross sales realisation comes to approximately Rs. 19.18 per ton.

The difference between the average sales realisation at existing prices and Rs. 19.65 comes to Rs. 0.47. We, therefore, recommend that the prices of all grades of coal, except Grade III, be increased uniformly by Rs. 0.50 per ton.

Prices Of Grade III Coal

We consider that Grade III coals should be treated somewhat differently from the higher grades. The production of this grade of coal (comprising Grades IIIA and IIIB) accounts for only six the per cent of total production in the Bengal-Bihar coalfields. Unlike the higher grades of coal, Grade III coal is, as a rule produced in comparatively small collieries which do not yield any higher grades. Mining is generally open cast or by shallow inclines. The cost of production is, therefore, less than for the higher grades. Capital investment is generally lower. While labour costs may not be different, expenditure on stores and other overheads is also lower. As most of the collieries are small, statutory obligations in regard to amenities are more limited in scope. For these reasons, and from our general observations, we are satisfied that there is no case for an increase in the present prices. On the other hand, we feel that it will not be possible to assess with any degree of reliability to what extent prices might be reduced. We understand from the Coal Controller that collieries producing Grade III coals do not as a rule maintain accounts of the type that would lend themselves to cost examination. We do not think, however, that on this account alone, prices which appear to us to be capable of some reduction should be left undisturbed. We feel that a better and more practical way of dealing with the situation would be to notify the present prices as ceiling prices, thereby permitting some competition which should result in some reduction. There are very good reasons why the prices of higher grade coals, particularly metallurgical coal, should be fixed prices and not ceilings. These we shall state in a subsequent chapter. We accordingly recommend that the present prices of Grade III coal in the Bengal-Bihar area should be notified as ceiling prices.

Period Of Price Fixation

It is implicit in our approach to the problem that the prices we are recommending should remain stable over

a reasonable period. We would recommend a period of five years. This we regard as the minimum. Major variations requiring radical changes in the price structure are unlikely to occur. We think, however, that provision should be made for appropriate changes in the prices to the extent increases in the cost of raising coal are caused by changes in the level of wages. Under the awards now in force, the wage level is related to the All-India average consumer price index. The level of dearness allowance is regulated in accordance with this index, the basic dearness allowance being related to an index of 102. For every increase of 10 points in the index in a half year, the dearness allowance is to be increased by Rs. 4/14/- in the ensuing half year. Further, we cannot state with certainty that the present award will remain operative throughout the five-year period. For making appropriate changes in the prices of coal as a result of changes in the wage level, we consider that our assessment of the wage element in the cost of coal would provide the necessary basis.

Stowing

We have stated earlier that the cost of stowing has been excluded in our previous calculations. Provision should, however, be made for meeting this cost where it has to be incurred. Stowing is not practised in all collieries, nor is it necessary to do so. It is mainly required in thick seams, both for maximum extraction of the reserves and for avoiding dangers of collapses and consequent risks of fire. On both these considerations, the encouragement of stowing, where necessary, is regarded very important. The Coal Board, therefore, subsidises stowing to the extent of 75 per cent or 85 per cent of the stowing costs actually incurred, subject to certain maximum limits. It would not be difficult to calculate the balance of the cost which collieries have to incur themselves. Even these, however, would vary. We have, therefore, thought that it would be inappropriate to include an element for stowing in the general price of coal. At the same time, it is not only necessary to provide for the stowing cost to be met, but to do it in such a way that there will be no disinclination to adopt stowing. We, therefore, recommend that stowing costs should be met in full. Maximum limits should, of course, be prescribed to ensure economy of expenditure on stowing. The additional funds needed for this purpose will have to be found by a suitable enhancement of the stowing cess. In our view, this enhancement may be of the order of Rs. 0.25 per ton.

Special Cases

We have explained earlier that the prices we have recommended are appropriate to an 'average' colliery. The price structure is sufficiently flexible to absorb minor variations in working conditions. But, there are

quite a few collieries which are handicapped by one kind or other of several adverse factors which inevitably tend to raise the cost of production. In a purely competitive economy, they might not be regarded as worth exploiting except under conditions of scarcity when prices as a whole are high. Many of these collieries, however, produce superior grades of coal which are very much in demand. In such cases, it is necessary to keep them in production. In a controlled economy it is neither necessary nor desirable to raise all prices to a level sufficient to maintain such units in production. We, therefore, consider that in such cases special assistance should be given in the form of a subsidy to enable them to sell at the prescribed controlled prices. Obviously, the subsidy cannot be determined on a general basis. It should be related to the requirements of each case and should be revised from time to time. Further, no such subsidy should be automatically granted. It must first be established that the continuance of the production from a particular colliery is necessary in the national interest. It should also be established that the working conditions are really exceptional and higher costs have to be necessarily incurred. In our opinion, the exceptional conditions which would qualify for special treatment would fall under the following heads:

(1) Gassy nature of the mine: This would involve both additional capital and revenue expenditure for ventilation arrangements, safety lamps, flame proof equipment, and the use of permitted explosives.

(2) Depth of workings: This will affect winding and pumping charges.

(3) Geological conditions like the existence of dykes and faults which necessitate extensive 'drifting' and increase the depth of underground haulage.

(4) Higher pumping charges resulting from excessive accumulation of water in the mine.

(5) Nature of seams: Their hardness, thickness, inclination, condition of roof, etc.

(6) High transportation costs from the pit-head to the rail-head.

For a consideration of such special cases, we recommend the following procedure.

The colliery concerned should apply for assistance to the Coal Board explaining in detail the special factors and their incidence. After initial examination, the Coal Board will advise the Government whether *prima facie* a case exists for special consideration. Should the Government consider that, in the circumstances prevalent at the time, the continuance of production in the colliery is necessary in the national interest, the Coal Board should be asked to conduct a detailed examination and to grant such quantum of subsidy for such period as it may deem necessary. A fund will have to be established from which the subsidy can be paid. In order to build up the fund, a cess will have to be

imposed. We consider that for the present a cess of Rs. 0.25 per ton, which at the current level of production will bring in about Rs one crore per year would be sufficient to meet the expenditure. Legislation will be necessary to implement these measures. This can be done either by a new Act or by appropriate amendments to the existing law bearing on the subject. In our view the most convenient way appears to be to amend the Coal Mines (Conservation & Safety) Act 1952, to provide for the necessary increase in the existing cess and to expand the purposes for which the cess may be used. There should also be provision to enable Government to give general or specific directions to the Coal Board from time to time.

Impact Of The Proposed Price Increase On The Economy Of The Country

If our recommendations are accepted, the increase in the price of coal to the consumer will be as follows:

(i) General increase	Re. 0.50
(ii) Additional cess to meet the full cost of stowing (estimated)	Re. 0.25
(iii) Additional cess for subsidy in special cases	Re. 0.25
		<hr/>
		Re. 1.00

The most important uses of coal are the Railways, Steel Plants and Thermal Power Stations. Almost all industries use some coal. There is also a widespread public demand for coal for brick burning. Any increase in the price of coal will, therefore, have a widespread impact on the economy. We feel, however, that the increase in price to the consumer, resulting from our recommendation, will have only a negligible effect on the users. It must be remembered that except for consumers in the vicinity of the collieries, the transport cost of coal is an element nearly as important as the price of coal itself. Even in the case of industries using large amounts of coal, like steel, cement and some chemical industries, the percentage of increase in the cost of production will be less than one. Because of this we have not thought it necessary to attempt to work out such percentages in detail. It is to be remembered in this context that assurance of supplies and right conditions for the expansion of production of coal are even more important to the consumer than the price of coal itself.

"Fixed" Prices Versus "Ceiling" Prices For Coal

We shall examine in this chapter whether the present system of "fixed" prices under the Colliery Control Order should continue or whether it would be desirable to replace it by a system of "ceiling" prices.

The cycles of fall in production, which were as many

as four between 1920 and 1944, have not recurred since price control was introduced and production has steadily increased from 26 million tons in 1944 to 43.5 million tons in 1957. In an unregulated economy, the coal industry was subject to violent fluctuations and there was a cycle of over-production, cut-throat competition and uneconomic prices followed by scarcity and high prices. Control on prices, coupled with regulation of production (of coking coal) and control over distribution, has eliminated these uncertainties and brought about reasonably stable conditions.

The prices originally fixed for the lower grades undoubtedly contained an excessive margin of profit and very soon it became apparent that these grades were being under-quoted. Some important consumers then proposed that, since collieries were willing to sell coal of lower grades at prices below the statutory price, controlled prices should be converted into "ceiling" prices. The argument was based on the following grounds and related primarily to the lower grades of coal:

(i) The Colliery Control Order was introduced mainly in the interest of the consumer, and, if the industry is able to sell below the statutory price, there should be no objection to permit them to do so;

(ii) So far as lower grade coals are concerned, there is a large pithead stock and it would benefit the industry to be able to dispose of this stock;

(iii) The prices fixed for Grades IIIA and IIIB coal were much too high having regard to the ash content and calorific value and consumers should be allowed to negotiate for their purchase without being fettered by statutory prices below which no prices can be demanded or offered; and

(iv) If coal prices are made competitive, it will help towards disinflation.

After due examination of the proposal, the Government decided that the stability which the industry had achieved through "fixed" prices should not be disturbed by converting them into "ceiling" prices.

The Indian Coalfields Committee, 1946, also gave thought to this question. They were of the view that prices should be "fixed" and not allowed to sag; but they equally emphasised the function of control to ensure that consumers are not charged prices higher than the "fixed" prices. The Committee observed as follows:

"We turn now to the question of control over coal prices. We have shown in earlier chapters how unfavourably the low prices for coal which prevailed some 10 years ago, reflected on mining practice, and we feel that it is essential that the price of coal should not again be allowed to fall to uneconomic levels. This opinion is supported by the fact that we are advocating in this report that every effort should be made to increase the production of coal in order that increased industrialisa-

tion of the country, which is now planned, may become possible."

The Working Party for the coal industry endorsed this view in 1951. They observed as follows:

"We have also had the experience of the years 1943 to 1946, when there was serious shortage in coal production caused, in our opinion, by negligence of the coal industry and the failure on the part of the industry to maintain their machinery and plant in order, to develop the mines adequately and maintain a settled and contented labour force in the coalfields. In a free economy the above conditions are likely to repeat themselves and in the interest of continuing production in the country at reasonable prices and of proper exploitation of the mining resources, we feel that steps should be taken to stabilise the coal prices and adopt measures by which not only coal is made available to the consumers at an economic price, but also the producers can obtain an economic price for their produce."

The result of decontrol of price is likely to be an immediate fall in price that may render a large number of marginal mines to be uneconomical and compel them to close down. Such marginal mines should not be called inefficient units as the increased cost of production is due to the conditions prevailing in them caused by secondary mining operations or other factors beyond the control of the management. But marginal mines cannot in the larger interest of the nation be allowed to be closed down, drowned and buried for ever because many of these mines may be impossible to be recovered except at abnormal expenditure. This is another reason why there should be a state of control of prices with a view to making it possible for the marginal mines to carry on."

In 1953 the Commodity Controls Committee which had an opportunity of examining this matter expressed the opinion that due to the rigidity of the cost structure and the fact that the industry was called upon to bear heavy burdens, for example, supply of food at controlled rates, the system of "fixed" prices should continue. They observed as follows:

"We do not support the suggestion that fixed prices should be treated as ceiling prices. For, if the collieries are allowed to sell below the ceiling price, the only result would be that there would be unhealthy competition among the weaker and the marginal mines would go out of production."

We are in general agreement with the above views. We would add that the case for fixed prices rests on another factor as well viz., control over transport. Transport is inadequate as compared to both production and availability of coal. The entire distribution system has, therefore, been rationalised so as to give priority to transport to the maximum and to ensure that the better grades of coal are distributed to industries which

them rather than be wasted by industries which can use lower grades. Certain restrictions are imposed on movement from different coalfields with a view to eliminating avoidable haulage and increasing the turn-round of wagons. In other words, a kind of zonalisation of the sources of supply has been made in respect of various points of consumption so that the supply of coal of a required quality is from the nearest possible colliery. It is an essential part of this rationalisation that the consumers will have to restrict their orders to the collieries in a specified zone. While such rationalisation may be necessitated by Railway operational requirements, it would be difficult to justify it except in a context of "fixed" prices. If a consumer can secure the same quality of coal at a lower price from any zone other than the one allotted to him, rationalisation will not permit him to get that coal, and the freedom given to him under a system of "ceiling" prices would be largely illusory. It was in view of this that the Railway Board observed as far back as 1952 that decontrol of the prices of coal would be inopportune when rationalisation of coal movements is sought to be achieved to the largest possible extent.

Wages and profits also are inextricably linked with prices and all these three elements taken together are the determinants of stability in the industry. It would be unrealistic to dissociate the price element from these and to take a decision in regard to this separately. The extent to which wages have become closely inter-linked with prices will be seen from the fact that a price increase of Rs. 3 was given in 1947 to enable the industry to implement the Conciliation Board Award. Another increase of Rs. 3 was given in July, 1956 in connection with the Industrial Tribunal Award and then again a further increase of Rs. 1/8/- per ton in July, 1957, in connection with the Appellate Tribunal Award. A further increase of As. 12 per ton has been given only very recently on May 17, 1958, to enable the industry to pay enhanced dearness allowance to workers. Thus an element of as much as Rs. 8/4/- in the price structure is connected with wages to labour, and, if price control is removed, there is the danger of attempts being made to lower the level of wages which are statutorily fixed. The result may be straining of the employer-employee relations with its repercussions on production.

The case for ceiling prices rests on general considerations. The main argument is that the consumer should have a choice, as only so he can be certain of getting the right quality of coal he requires. If for any reason the quality offered is lower than what he needs, he should have the choice of paying a lower price or getting better coal. It is argued that there is no better guarantee against the supply of inferior quality than competition. All this would indicate that unless there are other valid reasons, controlled prices should be the ceilings. It

would, however, be seen that in the case of the coal industry, such special conditions do exist. All the committees which have gone into this question previously have unanimously come to the conclusion that the maintenance of a system of fixed prices is necessary. After carefully considering the matter, we agree that essentially this policy should be continued. In our opinion a system of ceiling prices can be operated only in conditions where the consumer has a choice of the source of supply. The crucial question, therefore, is whether in the coal industry all consumers can be given this freedom of choice. The answer is clearly in the negative. We would emphasise in particular the necessity to confine the distribution of metallurgical coal to those who cannot do without it. It is the objective of Government's policy to achieve this state of affairs as soon as possible. For this purpose, it is not enough to prescribe that metallurgical coal shall be supplied only to the steel industry and a few others who need it. It is equally necessary to allocate the sources to individual units, taking into account not only the convenience of transport but also a fair distribution of the various qualities available. The establishment of coal washeries increase this necessity. These considerations apply, though perhaps with slightly lesser force, to other high grade coals as well. For these reasons we consider that, by and large, the system of fixed prices should continue.

We find, however, that in the case of Grade III coals, it might be practicable to give a certain freedom of choice to the consumer. In relation to demand, supplies are generally adequate. In fact, there is some over-production of lower grades and the greater part of pit-head stocks in collieries consists of these grades. We have already pointed out that the prices of Grade III coals might be able to bear some reduction. This can best be brought about by a limited competition. The only limits we have in mind will be those set by rationalisation of movement. Subject to this, the consumer will have a free choice of the sources of supply. With such a choice, he will be in a better position to obtain the right quality of coal and negotiate prices. For these reasons, we have recommended earlier that, as an experimental measure, the prices of Grade III coals in the Bengal-Bihar area be notified as the ceiling prices. After experience is gained of the practice of this method, the question of extension of this system to other areas producing low grade coals can be considered.

Outlying Fields Other Than Assam And Andhra Pradesh

In the outlying fields falling in Madhya Pradesh (inclusive of the former Vindhya Pradesh), Bombay and Orissa, 17 collieries were costed. These collieries comprised about 25 per cent of the total number of units in this region and accounted for about 47 per cent of the

overall output. The collieries selected represented various levels of production, with the monthly output ranging from 2,716 tons to 40,479 tons. Some of these collieries are mechanised or partly mechanised.

Coals in the outlying fields are not yet graded, and for the purpose of price fixation under the Colliery Control Order, they have been classed under certain groups. These groups, according to the price notification No. S.R.O. 2253, dated July 8, 1957, are as follows:

	Price R.O.M. and slack	Steam and rubble
First Group—16 collieries in Madhya Pradesh	19.75	20.75
Second Group—6 collieries in Hirdagarh area	21.69	22.69
Third Group—9 collieries in former Korea State	18.87	19.87
Fourth Group—11 collieries in the former Vindhya Pradesh area	17.25	18.25
Fifth Group—Korba colliery (subsequently added)	18.87	19.87
Sixth Group—18 "other collieries" in Madhya Pradesh	19.19	20.19
Seventh Group—5 collieries in Talcher (Orissa)	21.06	22.06
Eighth Group—3 "other collieries" in Orissa	20.06	21.06
Ninth Group—7 collieries in Bombay	19.75	20.75
Tenth Group—2 "other collieries" in Bombay	19.19	20.19

It will be seen that prices for the ninth group are the same as for the first, and similarly, those for the tenth and the sixth groups coincide. Before the re-organisation of States in 1956, the areas in which collieries in the ninth and tenth groups are situated formed part of the old Madhya Pradesh State.

Unlike in Bengal-Bihar, the prices thus vary from region to region. The variations arise principally from varying costs of production, these again being dependent on varying standards of workers' wages and amenities and factors of a local character. Thus, the former Korea and Rewa States had their own sanctioned scales of wages, and the higher prices for the second group are related to the higher transportation costs of the collieries in the area, these having to run tramlines of their own to carry coal from the pit-head to the rail-head. Now that wages and amenities have been statutorily standardised on an all-India scale, we consider that the time has come to apply uniformity to the prices of the collieries in all these fields.

As in the case of the Bengal-Bihar coalfields, we have

considered the data collected by the Cost Accounts Officers in the light of our discussions with the representatives of the industry. We also visited some of the collieries in this area. We first considered whether we should, following the pattern adopted in the Bengal-Bihar coalfields, try to ascertain norms for each of the ten groups. We come to the conclusion that the groups had come into being more as a result of historical factors than as a result of deliberate decisions based on an assessment of economic and working conditions. Our general conclusion is that, on the whole, there is no special reason or necessity for continuing these groups as they are. Most of the considerations which apply to the Bengal-Bihar coalfields apply equally to these coalfields also. In particular, wage rates are now governed by awards which are uniformly applicable to all coalfields throughout the country, except Assam. Similarly, the coal mines rules and regulations have to be applied uniformly. Statutory requirements regarding the provision of amenities to labour are also the same throughout the country. We have, therefore, considered that, except in regard to two factors which are discussed in the following paragraphs, the principles and standards we have recommended for application in the Bengal-Bihar area should be applied to the outlying collieries as well.

These two factors generally add to the costs in this region and have to be compensated by an allowance over and above what has been provided in the cost structure worked out for Bengal-Bihar. One is the higher cost of stores. These collieries are far away from the two principal ports of the country and the indigenous centres of manufacture of colliery stores. The result is that they have to incur higher freights on all stores, whether imported from abroad or obtained internally. Secondly, the strata being particularly hard are not susceptible to pick mining, and the expenditure on explosives is, therefore, higher. We feel that these factors would justify a provision under "stores" of Rs. 0.75 per ton higher than in Bengal-Bihar.

The other element which calls for recognition is the incidence of royalty. The average rate of royalty in this field is higher. In the Bengal-Bihar fields, leases in the permanently settled areas were obtained at rates of royalty much lower than the 5 per cent of the F.O.R. price prescribed under the Mineral Concession Rules, 1949. In Bengal, the average rate is Re. 0.28 per ton, and in Bihar, Re. 0.22 per ton. In the outlying fields, however, the prescribed rate is five per cent on the sale value of coal and in a few cases it is even higher. It is thus correct to say that for every increase of Re. one in coal prices, five np. are taken away in the form of royalty. Taking all these factors into consideration, we would provide for Re. 0.70 per ton under this head, in addition to the figure adopted for Bengal-Bihar.

Even after making adjustments as indicated above,

there may still be a few exceptional cases, as in Bengal-Bihar, which would require special treatment. These may arise out of factors like difficult geological conditions or unfavourably long distances from rail-heads. For example, in some of the units in Madhya Pradesh, the seams are traversed by the frequent faults, folds and dykes which reduce the coal-bearing areas and increase the raising costs. We recommend that such units should be dealt with in the manner stated earlier.

The normal cost structure for this area would thus be	
Cost structure for Bengal-Bihar	Rs. 17.90
Extra under "Stores"	Re. 0.75
Extra under "power, royalty, cess etc "	Re. 0.70
 Total	 Rs. 19.35

Adding the same element of profit, viz., Rs. 1.75 per ton, the revised price structure for this area should yield an average sales realisation of Rs. 21.10 per ton.

Grading

We have to consider in this context the question of grading these coals, which has been specially referred to us by the Government. While coals of Bengal-Bihar were graded in 1944, following the introduction of price control, coals of the outlying fields still remain ungraded. There has been a persistent demand from consumers served by these fields that the coals should be graded. The case for grading is generally based on several considerations. For example, it has been urged that it is obviously illogical that coals of varying qualities and fuel values (although produced in the same coalfield) should bear the same price. Again, consumers should be assured of some consistency in the supplies they receive. The Railways have complained that the coals supplied to them from the Korea and Rewa fields and the Pench Valley field show very wide variations in ash content from day-to-day. This impairs the efficiency of their locomotives. Grading is also a means of giving an incentive and fillip for improving the quality of production and despatches. It is necessary to improve the quality of coal despatched in order to encourage consumers to draw their requirements from the outlying fields, and thereby reduce the present excessive dependence on supplies from Bengal-Bihar. There will be not only a saving in the actual haulage effort and expenditure, but consumers will be assured of a more regular supply of coal. Thus, a system of grading will serve two purposes: it will improve the quality of despatches and will save transport. In the result, both coal distribution and consumers will be benefited.

We consider that, for the reasons stated, an attempt should be made to introduce grading in this area. Two Sub-Committees of the Coal Advisory Committee have studied this question and drawn up a scheme of grading

for these coals. We have studied the reports of the two Sub-Committees and the recommendation thereon by the Coal Controller.

The following basis for grading has been suggested :
Ash plus moisture content

Selected Grade	...	Not exceeding 19 per cent
Grade I	...	Exceeding 19 per cent but not exceeding 24 per cent
Grade II	...	Exceeding 24 per cent but not exceeding 28 per cent
Grade III	...	Exceeding 28 per cent but not exceeding 35 per cent

Barring only a few exceptions, these coals are all high volatile non-coking coals and the grading indicated above accords with the present grading of high volatile non-coking coals in Bengal-Bihar. The only difference is that only one Selected Grade has been suggested in place of two in Bengal-Bihar) and Grade III is a new grade which is distinct from Grades III-A and III-B of Bengal-Bihar. We consider this to be a suitable and satisfactory basis for grading and recommend that it may be adopted. Taking the production figures for 1957, we find that the production is likely to be shared between these four grades approximately in the following proportion :

Selected Grade	...	4 per cent
Grade I	...	28 "
Grade II	...	49 "
Grade III	...	19 "

In suggesting suitable prices for these different grades, we have tried to keep the price differential between one grade and another sufficiently wide to make grading worthwhile and workable in practice. After careful consideration, we recommend the following grade-wise prices; these will apply to all the collieries in these fields, replacing the groupwise prices mentioned above:

	R.O.M. and Stack	Steam and Rubble	Average
	Rs.	Rs.	Rs.
Selected Grade	21.85	22.85	22.45
Grade I	21.13	22.10	21.70
Grade II	20.35	21.35	20.95
Grade III	19.75	20.75	20.35

On the basis of the *inter se* proportion of the various grades, these prices will result in an average sales realisation of Rs. 21.11 per ton. These prices could be exclusive of the temporary increase recently. Sanctioned in compensation for the higher dearness allowance prescribed in the Award of the Appellate Tribunal. For the reasons already explained earlier, the prices we are recommending should operate as "fixed" prices and not as ceilings.

CLASS IV STAFF PROMOTION COMMITTEE, 1957—REPORT

New Delhi, Ministry of Railways, 1958. 68p.

Chairman : Shri G.D. Tapase.

Members : Shri B.B. Mathur; Shri C.V. Cunningham;
Shri A.P. Sharma; Miss Maniben Kara;
Shri S.S. Jagota; Shri J.N. Roy; Shri B.N.
Datar.

Secretary : Shri P.M. Narasimhan.

APPOINTMENT

While presenting the Statement of Revenue and Expenditure in March, 1957, the Railway Minister stated in the Lok Sabha that in the matter of promotion of Class IV employees to higher grades, the present rules were rather restrictive and in certain categories there were no chances of promotion at all. He expressed his desire to appoint a Committee to examine this and allied issues and the Class IV Staff Promotion Committee was constituted under the Ministry of Railways vide their Press Note, dated May 4, 1957.

TERMS OF REFERENCE

(i) To examine the existing channels of promotion for class IV staff and to determine new channels of promotion preferably for uniform application over all Indian Railways.

(ii) To determine the conditions of eligibility of staff for promotion.

(iii) To prescribe the manner in which employees should be selected for promotion.

(iv) To prescribe the training, if any, that should be given to selected employees before being promoted and the additional training facilities over and above those existing at present that should be provided.

CONTENTS

Introduction; Classification of and Recruitment to Railway Services, The Problem—General Recommendations; Miscellaneous Recommendations; Promotion to Higher Grades; Minimum Qualifications for Recruitment Engineering Department; Mechanical Engineering & Transportation (Power) Department; Transportation (Traffic) and Commercial Department; Medical Department; Stores Department; Signal and Telecommunication Department; Electrical Department; Training; Miscellaneous; Summary of Recommendations; Supplementary Note by Miss Kara and Shri Datar; Appendices A to F.

RECOMMENDATIONS

The cadres in the various departments should be fixed

in such a manner that each employee can reasonably expect to get the first promotion and that too even before he has put in 12 to 13 years of service. To achieve this objective, we recommend (i) opening up new channels of promotion where they do not exist; (ii) grouping of posts to avoid dead-ends; (iii) stopping direct recruitment in higher grades of Class IV and to a certain extent in Class III; and (iv) upgrading of posts to make up the balance.

For the categories of staff whom officiating allowance is admissible without regard to the minimum time limit, leave reserve should be provided in the same grade.

The designation and duties of Class IV staff should be standardised as far as possible to ensure uniformity on all railways.

No direct recruitment should be made to higher grades in Class IV except,

(a) In certain categories where the men do not offer from Class IV, and

(b) When they cannot be trained in time in cases of expansion and/or embarking on new projects.

The quota for promotion from Class IV to Class III should be raised from 10 per cent to 25 per cent for categories for which no regular avenue of promotion exists.

There should be a still higher ratio of 50 per cent for train clerks, transhipment clerks and ticket collectors.

The Promotions to Class III in the ministerial and outdoor cadres should be made on the basis of a departmental competitive examination to be held annually railway-wise which will be open to Class IV railway employees who have put in five years' aggregate service.

Class IV staff who appear and pass in the matriculation examination after entry in service should be eligible for promotion to Class III service provided they have put in five years' service or are permanent.

There should be a quota of 10 per cent for promotion from Cabinmen to the lowest grade of Cabin Assistant Station Masters.

The existing orders regarding literacy for purpose of recruitment to Class IV should continue. For the recruits belonging to scheduled castes and scheduled tribes, this condition should be relaxed where mere literacy is required.

In the case of those illiterate railway employees already in service or those who may have to be recruited in future, the administration should make arrangements to impart literacy with the cooperation of the trade unions and social/voluntary agencies.

Engineering Department—Permanent Way Side

Posts of permanent way mistries, gangmates and keymen should be filled only by promotion.

25 per cent of posts of assistant permanent way inspectors should be filled by promotion from the cadre of mistries.

The gang beats should be so adjusted that there are not more than 12 to 14 gangmen in any gang; where the gang strength is less, no change should be made.

The cadre strength of permanent way mistries should be increased.

Trolleymen, gatemen and chowkidars should be merged with gangmen and serve as gangmen by rotation subject to the condition that they are medically fit.

10 per cent of the annual intake of gangmen should be encouraged to be transferred to the Mechanical Engineering and Transportation (Power) and Commercial Departments as well as the works side of the Engineering Department.

About 31 per cent to 32 per cent of posts of gangmen should be upgraded; likewise, about five per cent of the unskilled posts of the works side should be upgraded.

Mechanical Engineering And Transportation (Power) Department

30 per cent posts of chargeman 'C' grade and 50 per cent of posts of skilled artisans should be filled by promotion.

The cadre of skilled and semi-skilled posts should be decided on the basis of actual requirements. The posts of basic tradesmen should not count against skilled posts.

In the case of semi-skilled categories for which there are no allied skilled categories, the semi-skilled workmen should be transferred as basic tradesmen to provide an avenue of promotion.

Jamadars should be permitted to go as semi-skilled.

The chances of promotion for Khalasis should be equalised.

Unskilled staff other than in the workshops, should uniformly be designated as Khalasis, the functionary qualification being only incidental; they should seek promotion either in Loco Maintenance or Carriage and Wagon Maintenance sides.

the Transportation and Commercial Departments should be combined together for the purposes of promotion.

Categories like box porters, call boys, running room bearers, etc., should also be eligible for promotion as pointsmen, coupling porters, etc.

The balance of posts required should be upgraded.

66-2/3 per cent of posts of guards, grade 'C' should be filled by promotion.

Medical Department—Hospital Staff

All hospital staff should be pooled and be eligible for promotion as dressers and laboratory attendants.

Hospital staff in the lowest grade of Rs.30-35 should be upgraded so that there are in all 50 per cent of posts in the higher grade.

Conservancy Staff

In departments like Carriage and Wagon, Transportation etc., where the sweepers cadre is comparatively small, they should be pooled with khalasis, porters, etc., in the unskilled grade and allowed the same avenues of promotion. The resultant vacancies of sweepers in these departments should be filled by drawing from the conservancy cadre of the Medical/Engineering Department.

A uniform yardstick should be laid down for determining the number of jamadars on a liberal basis.

The balance of posts required to make up 50 per cent of the number of posts of sweepers should be upgraded to higher grade in accordance with the general principle.

Stores Department

Posts in the scale Rs. 55-85 as well as posts in the higher grades in class IV and semi-skilled posts should be filled only by promotion.

After taking into account these posts, the balance required to make up 50 per cent of posts in the scale Rs. 30-35 should be upgraded.

Signal And Telecommunication Department

Recruitment to the lowest grade in this Department should be made from persons with at least middle school standard.

Electrical Department

Recruitment to the lowest grade in this Department should be made from persons with at least fifth standard.

Training

Training should be imparted for various categories to equip them for promotion.

The Railway Board should take all steps to secure expeditious implementation of the accepted recommendations.

Running Staff

Promotion to the grade of fireman 'A' grade should be made to the extent of 25 per cent of vacancies from the grade of fireman 'B'.

Air-conditioned coach attendants should be placed in the scale of Rs. 40-60.

Transportation And Commercial Department

It is recommended that the staff in grade Rs. 30-35 in

COMPANIES ACT AMENDMENT COMMITTEE, 1957—REPORT

New Delhi, Department of Company Law Administration,
1957. 222p.+iip.

Chairman : Shri A.V. Visvanatha Sastri.
Members : Shri C.C. Shah; Shri G. Basu; Shri J.D.K. Brown; Shri K.R.P. Aiyangar.
Secretary : Shri F.N. Sanyal.

APPOINTMENT

The Companies Act Amendment Committee was constituted under the Ministry of Finance (Department of Company Law Administration) vide their Order, dated May 15, 1957.

TERMS OF REFERENCE

Having regard to the aims and objects of the Companies Act, 1956, and in the light of its working—

(i) To consider what amendments in the Act are necessary:

- (a) To overcome such practical difficulties in its working as may have been encountered since it came into force;
- (b) To remove such drafting defects and obscurities as may have interfered with the working of the Act;
- (c) To ensure the better fulfilment of the purposes underlying the Act;

(ii) To consider what changes in the form or structure of the Act, if any, are necessary or desirable to simplify it.

CONTENTS

Introductory; Amendments recommended by the Committee; Nidhis and Benefit Societies; Acknowledgement Annexure (Accounts); Appendices I and II.

RECOMMENDATIONS

Sections of the Companies Act, 1956, Affected	Suggestion made by the Committee

(1)	(2)
2	Amendment of Sub-Sec. (3)(c)(i).
2	Amendment of Sub-Secs. (3)(c)(ii) and (4)(b)(ii).
2	Amendment of Sub-Sec. (7).
2 & 8	Amendment of Sub-Sec. (9) of Sec. 2 and of Sec. 8.
2 & 10	Amendment of Sub-Sec.(ii) of Sec. 2 and of Sec. 10.

(1)	(2)
2	Amendment of Sub-Sec. (17).
2	Insertion of a new Sub-Sec. as Sub-Sec. (18A).
2	Amendment of Sub-Sec. (26).
2	Amendment of definition in Sub-Sec. (45) so as to accord with policy.
2	Amendment of Sub-Sec. (33) r/w Ss.549 and 643.
2	Amendment of Sub-Sec. (36).
3	Insertion of a proviso to Sub-Sec. (1) (iv).
4	Suggestion for amendment of Section in line with policy.
4	Amendment of Sub-Secs. (1)(b) and (2) (c).
6	Redraft of Section.
7 & 538	Amendment of Sec. 7 and Sub-Sec. (3) of Sec. 538.
13	Amendment of Sub-Sec. (1)(c).
17	Amendment of Sub-Sec. (4).
18	Amendment of Sub-Secs. (1) and (4).
19	Amendment of Sub-Sec. (2).
23	Insertion of a new Sub-Sec. as Sub-Sec. (4).
25	Amendment of Sub-Secs. (6) and (8).
28 & 29	Substitution of a new Sec. for the Sections.
31	Addition of a proviso to Sub-Sec. (1).
31	Insertion of new Sub-Sec. (3) and re-numbering of the existing Sub-Sec. (3) as Sub-Sec. (4).
38	Addition of a few words at the end of the proviso to Section.
39	Amendment of Sub-Sec. (1).
41	Amendment of Sub-Sec. (2).
49	Amendment of Sub-Secs. (1), (2), (5) (a) and (6).
60	Amendment of Sub-Sec. (3).
73	Amendment of Sub-Sec. (1).
76	Amendment of Sub-Sec. (2).
80	Amendment of Section.
81	Amendment of Sub-Sec. (1).
84	Addition of a Sub-Section.
88	Amendment of Section.
89	Amendment of Sub-Sec. (1).

(1)	(2)	(1)	(2)
89	Amendment of Section to provide for Company or Shareholder to apply to Court.	193	Amendment of Sub-Sec. (1).
		194	Redraft of the Section.
		196	Amendment of Sub-Sec. (2).
106	Amendment of Section.	197	Amendment of Sub-Sec. (1).
108	Provision to be made for allowing transfers on execution of indemnity bond.	198	Amendment of Heading of Section.
111	Amendment of Sub-Secs. (2), (4) and (5).	198	Amendment of Sub-Sec. (1).
111	Insertion of two new Sub-Secs. as Sub-Secs. (6) and (10) and renumbering of existing Sub-Secs. (6) to (8) as (7) to (9) in the Section.	198	Deletion of Sub-Sec. (3) (b).
111	Further amendment of the Section.	198	Addition of a proviso to Sub-Sec. (1).
113	Amendment of Sub-Sec. (1).	309	Insertion of an Explanation in Sub-Sec. (1).
125	Amendment of Sub-Sec. (1) empowering Registrars to condone delays in applying for registration of a charge.	309	Amendment of Sub-Sec. (2).
138 & 139	Substitution of a new Section for the Sections.	310	Redraft of Sub-Sec. (3)(a).
142	<i>Deletion of Sub-Sec. (1) (b).</i>	204	Amendment of Sub-Sec. (4).
145	Amendment of Section.	204	Redrafts of Sub-Secs. (2) and (3).
147	Amendment of Sub-Sec. (1)(c). Further amendment of Sub-Sec. (1)(c).	205	Insertion of a new Sub-Sec. as Sub-Sec. (5A).
149	Omission of Sub-Sec. (8).	207	Amendment of Sub-Sec. (8).
154	Amendment of Section.	207	Amendment of the Section.
155	Amendment of Sub-Secs. (1) and (3) and the addition of a new Sub-Section as Sub-Section (5).	209	Power for Govt. to relax provisions of Sub-Sec. (4).
156	Amendment of Section.	209	Amendment of Sub-Secs. (1) and (5).
159	Amendment of Sub-Secs. (1) and (2).	209	Redraft of Section.
159	Further amendment of Sub-Sec. (1).	209	Insertion of a new Sub-Sec. as Sub-Sec. (1) in the Section.
161	Amendment of Sub-Sec. (2)(c).	210	Amendment of Sub-Sec. (2).
163	Addition of a proviso to Sub-Sec. (1).	211	Amendment of Sub-Sec. (1) and the addition of a proviso thereto.
	Amendment of Sub-Secs. (3)(b) and (4).	211	Insertion of a new Sub-Sec. as Sub-Sec. (3A).
165	Amendment of Sub-Sec. (4).	212	Amendment of proviso to Sub-Sec. (5).
166	Amendment of Sub-Sec. (1) and addition of two provisos to Sub-Sec. (2) <i>inter-alia</i> empowering the Central Government to grant relaxations of the requirements of Sub-Sec. (2).	212	Amendment of Sub-Sec. (6).
		212	Amendment of Sub-Sec. (4) and of the proviso to Sub-Sec. (5).
169	Amendment of Sub-Sec. (4).	217	Amendment of Sub-Sec. (5)(iii).
170	<i>Amendment of Sub-Sec. (1).</i>	217	Amendment of the provisos to Sub-Secs. (1), (2) and (7).
171 & 190	Amendment of Sec. 171(1) and Sec. 190.	219	Amendment of Sub-Sec. (2)(a).
		220	Amendment of proviso to Sub-Sec. (9).
172	Amendment of Sub-Sec. (2)(i) by the addition of a proviso thereto.	220	Amendment of Sub-Sec. (1)(b).
		220	Addition of two clauses of clauses (d) and (e) to Sub-Sec. (1).
176	Amendment of Sub-Sec. (3).	224	Amendment of Sub-Sec. (1).
187	Amendment of Sub-Sec. (2).	226	Amendment of Sub-Sec. (1)(a).
190	Amendment of Sub-Sec. (1).	227	Deletion of Sub-Sec. (1)(b).
192	Amendment of Sub-Secs. (1), (2) and (4)(g).	228	Amendment of Sub-Sec. (2).
		238	Amendment of Sub-Secs. (1) and (2).
			Amendment of Sub-Sec. (2).
			Redraft of Sub-Sec. (5) recommended.
			Amendment to Sub-Secs. (1) and (2).
			Insertion of a new Sub-Sec. as Sub-Sec. (3).

(1)	(2)	(1)	(2)
234	Amendment of Sub-Secs. (1), (2), (3) and (4).	301	Redraft of Sub-Secs. (1) to (3).
239	Amendment of Sub-Secs. (1)(c) and (2).	302	Amendment of Sub-Sec. (7).
240	Amendment of Sub-Secs. (1) and (3).	303	Amendment of Form No. 32 prescribed under the General Rules.
240	Penalty to be imposed for disobedience of Court's Order.	303	Addition of a proviso to Sub-Sec. (2).
245	Amendment of Sub-Secs. (2) and (3).	305	Suggestions for Amendments of Section.
250	Amendment of Section.	307	Other amendments to the Section.
252	Amendment of Section.	310 & 311	Addition of a new Sub-Section to Section.
255	Amendment of Sub-Sec. (1).	313	Substitution of a new Section in the place of the two sections.
256 & 257	Amendment of Sections.	314	Amendment of Sub-Sec. (2).
257	Further amendment of Sec. 257(1).	314	Redraft of Sub-Sec. (1) with the addition of an 'Explanation'.
261	Amendment of Sub-Sec. (5).	314	Insertion of a new Sub-Section as Sub-Section (2).
263A	Insertion of a new Section as Sec. 263A.	314	Existing Sub-Sec. (2) with amendments to be renumbered Sub-Sec. (3).
264	Redraft of Section.	314	Existing Sub-Sec. (3) with amendments to be renumbered Sub-Sec. (5).
269	Redraft of Section.	314	Insertion of a new Sub-Section as Sub-Sec. (4).
271	Amendment of Section.	329	Amendment of the Section.
267 & 274	Amendment of Sec. 267(c) and Sec. 274(1)(d).	332	Amendment of Sub-Sec. (4)(b).
283	Amendment of Sub-Sec. (1), Sub-Sec. (1)(e) and (1)(h).	340	Amendment of Sub-Sec. (1).
283	Insertion of new Clause as Clause (1) in Sub-Sec. (1).	342	Amendment of Sub-Sec. (2) and redrafts of Sub-Secs. (3) to (5).
285	Addition of a proviso to Section.	343	Redraft of the Section.
287	Amendment of proviso to Sub-Sec. (2).	346	Amendment of Sub-Sec. (1).
292	Amendment of the existing proviso to Sub-Sec. (1).	348	Addition of a new Sub-Sec. to the Section as Sub-Sec. (2), the existing Section being numbered Sub-Sec. (1) with some amendments.
292	Insertion of a further proviso to Sub-Sec. (1).	349	Amendment of Sub-Sec. (4)(1). Insertion of a new clause as Clause (o) to Sub-Sec.(4).
292	Insertion of Explanations in Sub-Sec. (1).	349	Amendment of Sub-Sec. (4) (j).
292	Amendment of Sub-Sec. (2).	350	Redraft of the Substantive part of Section.
293	Amendment of Sub-Sec. (1)(c).	354	Amendment of the Section.
293	Amendment of Sub-Sec. (1)(b).	356	Amendment of Sub-Sec. (2).
293	Insertion of a further Explanation to Sub-Sec. (1).	358	Amendment of Sub-Sec. (2).
293	Insertion of a further proviso to Sub-Sec. (1) defining "temporary loans".	360	Amendment of Sub-Sec. (1). Amendment of Sub-Sec. (4). Insertion of an explanation in the Section.
293	Redraft of Sub-Sec. (5).	361	Redraft of the Section.
293	Insertion of a new Sub-Sec. as Sub-Sec. (6) in the Section.	362A	Insertion of a new Section as Section 362A.
293	Amendment of Sub-Sec. (1)(e).	363	Amendment of the Section.
294	Insertion of new provisions in the Section.	369	Amendment of Sub-Sec. (1)(a). Insertion of an explanation in Sub-Sec. (2).
294	Amendment of Sub-Secs. (1) and (2).	370	Amendment of Sub-Sec. (2)(b). Amend-
296	Redraft of Section.		
297	Insertion of a proviso to Sub-Sec. (1).		
297	Amendment of Sub-Sec. (2).		
297	Further amendment of Sub-Sec. (2).		
300	Amendment of Sub-Sec. (2)(d).		

(1)	(2)	(1)	(2)
	ment of Sub-Sec. (3). Insertion of a new Clause as Clause (iii) to Explanation to Sub-Sec. (1). Amendment of Clause (ii) to Explanation to Sub-Section (1). Insertion of a further new Clause as Clause (iv) to Explanation to Sub-Sec. (1). Addition of a Sub-Clause to Sub-Sec. (2). Insertion of a new Section as Section 370A.	468 469 477 481 490 r/w, 515 502	Further amendment of the Section. Amendment of Sub-Sec. (1). Provisions to be made in the Section on the lines of Sec. 36(4) and (5) of the Presidency Towns Insolvency Act. Amendment of Sub-Sec. (1). Amendment of Sections 490(1)(b) and 515. Amendment of Sub-Sec. (2) with a view to empower the Court to fix remuneration of Liquidator appointed by it in a voluntary winding up.
372	Amendment of Sub-Section (9).	512	Amendment of Sub-Sec. (1)(a).
377	Amendment of Sub-Section (1).	513	Amendment of Sub-Sec. (1).
384 & 386	Amendment of Sec. 384 and Sub-Sec. (5) of Section 386.	515	Amendment of Sub-Sec. (3).
388A	Insertion of a new Sec. as Sec. 388A.	522 & 524	Amendment of the Sections.
390	Amendment of Clause (a).	524	Amendment of the Section.
391	Amendment of Sub-Sec. (2).	529	Addition of a Sub-Section to the Section.
408	Amendment of Sub-Seecs. (1) and (2). Insertion of a new Sub-Sec. as Sub-Sec. (4).	531A	Insertion of a new Section as Section 531A.
416	Amendment of Sub-Sec. (3)(a).	535	Amendment of Sub-Sec. (4).
417	Amendment of Sub-Sec. (1).	537	Amendment of Sub-Sec. (2).
418	Amendment of Sub-Sec. (1) and deletion of the proviso thereto. Amendment of Sub-Sec. (4).	549 r/w, Sec. 2(33) and 643	Amendment of Sub-Sec. (1) of Sec. 549.
426	Amendment of Sub-Sec. (1)(g).	555	Amendment of Sub-Sec. (9).
439	Amendment of Sub-Sec. (5).	582	Amendment of Clause (b).
440	Deletion of Section 521.	595	Amendment of Clause (c).
r/w 521	Amendment of the Section.	610	Amendment of Sub-Sections (1)(b) and (4).
446	Amendment of the Section so as to confer power on the Court to appoint person other than the Official Liquidator.	611	Insertion of a further proviso to the Section.
449	Amendment of the Section to vest power in the Court to punish defaults under the Section.	614	Insertion of a new Sub-Section as Sub-Sec. (3) of the Section, the existing Sub-Section (3) being renumbered as Sub-Sec. (4).
454	Amendment of the Section so as to confer power on the Court to extend time for submission of report by Official Liquidator.	616	Amendment of Clause (c).
455	Insertion of a new Sub-Sec. in the Section.	617	Amendment of the Section.
456	Amendment of the Section.	624A	Insertion of a new Section as Section 624A.
457	Amendment of Sub-Sec. (1).	626	Redraft of the Section.
463	Amendment of the Section requiring Courts to give directions as to constitution of Committee of Inspection.	629A	Insertion of a new Section as Section 629A to provide generally for penalties for defaults.
465	Insertion of a provision in the Section similar to Sec. 36 of the Presidency Towns Insolvency Act.	643	Amendments of Sub-Seecs. (1)(a), (1)(b) and (1)(b)(iv).
468	Suggestion for the deletion of these sections.	645, 647(2), 648, 656 & 658	Further amendment of the Section.
		647	

FOODGRAINS ENQUIRY COMMITTEE, 1957—REPORT

New Delhi, Ministry of Food and Agriculture (Department of Food),
1957. 191p. Charts & Maps.

Chairman : Shri Asoka Mehta.

Members : Shri M. Thirumala Rao; Shri S.F.B. Tyabji; Raja Surendra Singh of Nalagarh; Shri Venkatesh Narayan Tivary; Shri B.K. Madan.

Member

Secretary : Dr. S.R. Sen.

APPOINTMENT

In the course of a statement made in the Lok Sabha on May, 14, 1957, on the food situation the Minister for Food and Agriculture announced: "The Government have come to the conclusion that the whole question requires thorough investigation and have decided to set up a high-powered Committee to investigate fully into the causes of rise in prices despite higher production and to suggest immediately and from time to time remedial measures which would prevent speculative hoarding and arrest undue rise in prices." It was in accordance with this announcement that the present Committee was constituted under the Government of India Resolution No. 158 (1)/57-PY.1, dated June 24, 1957.

TERMS OF REFERENCE

(i) To review the present food situation and to examine the causes of the rising trend of food prices since about the middle of 1955.

(ii) To assess the likely trend in demand and availability of foodgrains over the next few years, taking into account—

(a) The steps taken and those proposed to be taken under the Second Five-Year Plan by the Central and the State Governments to increase food production;

(b) The impact of growing development expenditure, increase in population and urbanisation, on the demand for marketable surpluses;

(c) Availability of foodgrains from abroad in relation to requirements and in the light of the foreign exchange position; and

(iii) To make recommendations to ensure a level of prices which would provide the necessary incentive to the producer with due regard to the interest of the consumer and the maintenance of a reasonable cost structure in the economy.

Subsequently on September 19, 1957, the Minister requested the Committee also to examine the problem

of the areas where the food problem had been one of recurring nature and pay more attention to the food problem of the Eastern U.P.

CONTENTS

Introductory; Review of Food Situation: Trends in Prices since 1950-51; Review of Food Policy in Recent Years; Analysis of Factors in Rise in Prices; Prospects of the Future; Price Stabilisation; Foodgrains Stabilisation Organisation; Short Period Measures; Production and Marketed Surplus; Problem of Scarcity Areas; Conclusion; Appendices from I to VI; Charts from I to X; Map of Uttar Pradesh.

RECOMMENDATIONS

Rise In Prices

The embargo on exports of foodgrains was lifted for the first time after a decade. Government also undertook limited price support operations early in 1955. All these helped to create a general feeling that the bottom was perhaps reached and prices could not fall further.

The rise in prices in India was not an isolated phenomenon. During 1956, there was a rise in price roughly of the order of seven to nine per cent in most of the Asian countries, five to six per cent in U.S.A. and four to five per cent, in European countries. However, the greater rise of prices in India than in world prices during 1956 followed a phase of substantial price decline in 1954 and the first part of 1955 when world prices experienced a small rise. The rise in Indian prices during 1956, therefore, could be regarded as partly compensating the earlier fall in prices.

We have noted the divergence in movements of prices among a large number of important centres during the downward phase of prices in 1954-55. Similar disparities in movement of prices from one centre to another may be observed during the upward phase of prices in the last two years.

These data illustrate clearly the heterogeneous character of and lack of mobility in the Indian economy and also underline the pitfalls of coming to a general conclusion on the basis of average alone. For instance, although all-India averages do not show an appreciable rise in cereals' prices as compared to the base year 1952-53, they do not register the difficulties, say, of the people of Ujjain who have to pay 180 per cent more than in 1955 and 27.3 per cent more than in 1953 for

Mid-Year Prices

	June 1953	June 1955	June 1957	Percentage increase (+) or decrease(—) in 1957 over	
				1953	1955
(a) Rice					
1. All-India Index No. (Base : 1952-53=100)	109	77	106	— 2.8	+ 37.6
2. Patna (Bihar)	Rs. 24.00	13.00	23.00	— 4.2	+ 76.9
3. Nowgarh (U.P.)	Rs. 28.00	14.62	21.75	— 22.4	+ 48.7
4. Nandgarh (Mysore)	Rs. 20.39	11.50	20.00	— 2.0	+ 73.9
5. Balurghat (West Bengal)	Rs. 21.50	14.75	22.50	+ 4.6	+ 52.5
6. Kozhikode (Kerala)	Rs. 33.00	13.50	20.55	— 37.8	+ 52.2
7. Imphal (Manipur)	Rs. 14.75	5.00	7.25	— 50.9	+ 45.0
8. Kakinada (Andhra Pradesh)	Rs. 25.25	13.50	20.00	— 20.8	+ 48.1
9. Kalyan (Bombay)	Rs. 26.08	14.00	21.00	— 19.5	+ 50.0
10. Cuttack (Orissa)	Rs. 12.00	17.87	16.75	+ 39.6	— 6.3
11. Calcutta City	Rs. 16.75	17.50	22.50	+ 34.3	+ 28.5
12. Madras City	Rs. 21.37	13.37	19.20	— 10.2	+ 43.6
(b) Wheat					
1. All India Index No.	95	62	88	— 7.4	+ 41.6
2. Jabalpur (M.P.)	Rs. 20.62	12.50	17.75	— 13.9	+ 42.0
3. Kanpur (U.P.)	Rs. 17.75	9.50	12.81	+ 27.8	+ 34.8
4. Kotah (Rajasthan)	Rs. 14.44	9.00	14.62	+ 1.2	+ 62.4
5. Abohar (Punjab)	Rs. 13.62	11.12	13.50	— 1.9	+ 21.4
6. Dhanduka (Bombay)	Rs. 19.42	11.00	18.50	— 4.8	+ 68.2
7. Rewa (M.P.)	Rs. 20.00	10.00	15.31	— 23.5	+ 53.1
8. Delhi City	Rs. 15.62	10.00	15.00	— 4.0	+ 50.0
9. Bombay City	Rs. 19.42	12.87	19.25	— 0.9	+ 49.5
(c) Jowar					
1. All India Index No.	109	57	127	+ 16.5	+122.8
2. Amravati (Bombay)	Rs. 11.50	6.00	13.25	+ 15.2	+120.8
3. Ujjain (M.P.)	Rs. 11.00	5.00	14.00*	+ 15.2	+180.0
4. Nandyal (Andhra Pradesh)	Rs. 13.50	5.75	16.00	+ 18.5	+178.2
5. Jhansi (U.P.)	Rs. 13.25	5.31	13.56	+ 2.3	+155.4

* Relates to July 5, 1957.

their Jowar, or of Calcutta who have to pay 28.5 per cent more than in 1955 and 34.3 per cent more than in 1953 for their rice or of Rewa where wheat prices first fell by 50 per cent and then again rose by 50 per cent all within four years. All India average prices do not record the considerable regional disparities in prices, such as are indicated by the fact that in June, 1957, price of rice at Patna was Rs. 23.00 per maund as against Rs. 16.75 at cuttack and Rs. 7.25 at Imphal or of wheat was Rs. 19.25 in Bombay as against Rs. 12.81 in Kanpur. In fact, it was such sharp variations in prices over space as well as the changes over time during the last quinquennium which created many of the stresses and strains in the economy.

We recognise that under our terms of reference we

are concerned primarily with the problem of prices in the country as a whole. Regional disparities indicate the development of scarcity pockets caused by vicissitudes of weather or difficulties of transport in a vast country like ours. In an inflationary situation, however, price rise in any area tends to be sticky and the rise in prices in pockets of scarcity tends to spread and thus contributes to a general rise in prices.

Food Distribution

Government's food policy in recent years may be reviewed broadly in relation to its own two main aspects: (i) Short-term and (ii) Long-term. The former consisted chiefly of programmes of food distribution and the

latter of food production. They are the regulatory and developmental aspects of policy respectively. However, the regulatory parts of policy are not necessarily all short-term nor are the developmental aspects wholly long-term. Price and selective credit policies are ancillary to both aspects and have recently assumed some importance, the latter having been operated by the Reserve Bank primarily as a restrictive instrument.

Between 1951 and 1957, Government's policy regarding food distribution has undergone a change successively from complete control to complete decontrol and back to partial control.

The existing system of control was held to be adversely affecting production and, even more, the volume of marketed surplus.

Rise in Prices

The causes of the rise in prices in the last two-and-a-half years may be broadly classified as (a) general factors and (b) specific factors. Under general factors may be considered the broad forces—monetary and non-monetary—operating on the price level as a whole including prices of food as well as non-food articles. The specific factors would relate to foodgrains or cereals in particular and may be further classified as (i) factors on the demand side, and (ii) factors on the supply side.

There is no index of velocity of circulation available in respect of the bulk of money-supply which takes the form of currency circulation. But in regard to bank money a reliable indicator of the rate of monetary turnover is to be found in the figures of total bank debits in relation to demand deposits which are now published by the Reserve Bank. These is no basis for assuming that the velocity of currency circulation corresponds to the turnover of bank money.

To some extent, an increased volume of money supply is also required to sustain the same level of prices owing to the steadily expanding boundaries of the money economy or the gradual extension of what is termed the monetised sector of the economy and the resulting increase in the demand for money. This has been placed at about one per cent per annum, but may well be significantly larger owing to the large expansion, e.g., in the sector of bank financed transactions. This is, at any rate, likely to be a somewhat variable or discontinuous factor.

On the whole, a large part of the rise in the general level of prices may be ascribed to a general increase in demand resulting from the increase in investment expenditure on public and private account accompanied by deficit-financing and credit expansion, however, have also been associated with a certain increase in production activity. The increase in production has intended to moderate and absorb the inflationary impact of investment expenditure to a considerable extent, and the

rise in prices would have been greater but for the increase in production.

Inflationary trends in India during this period, therefore, were by no means an isolated phenomenon. The effect of the general inflationary forces, however, will be different on different commodities, depending upon their relative demand and supply situations and effectiveness of any controls in operation. It is to a consideration of the specific factors on the demand and supply sides respectively for foodgrains that we now turn.

The system of rationing had converted many who formerly used to live on coarse grains to eating rice and wheat. When rationing was abolished a certain increase in the consumption of rice and wheat probably tended to retain, though there was some shift back to coarse grains. For instance, we were told by the representative of the Tea Association in Assam that the tea garden labourers no longer accept the coarse rice which they used to eat in the old days. Similarly, we were told in Orissa that the mining labour now-a-days insists on having better quality rice. In other areas, we understood that people who used to live on roots like tapioca or sweet potatoes are now transferring their demand to millets or coarse rice and people who used to take millets formerly are now gradually shifting over to rice or wheat. Such analysis of statistical evidence as we have been able to make does not, however, indicate that changes in food habits are of substantial magnitude over the short period.

The per adult availability of food in India amounts only to 2,200 calories as against an estimated 3,000 calories that are required by minimum nutritional standards. Even this average is misleading because there are large sections of the population who hardly get 1,200 to 1,500 calories per adult per diem. With even a small increase in income the first demand of the under-fed people is naturally for more foodgrains. An increase in consumption by half the population by one oz. more of cereals per capita per day would put up the total requirement by over two million tons.

The supply factor has to be considered in relation not merely to over-all production and net imports of all foodgrains taken together but also to marketed surplus of different types and varieties of foodgrains in different periods of the marketing season and in different areas. It is, therefore, necessary to examine carefully factors affecting production, marketed surplus as also imports.

That the actual increase in production during the First Plan period, i.e., in 1955-56 over 1949-50 was of the order of 13.7 per cent or roughly 7.3 million tons of foodgrains as indicated by production indices and not 20.8 per cent as indicated by the unadjusted figures of production. The increase of 7.3 million tons during

the First Plan period does not appear to compare unfavourably with the target of 7.6 million tons. It should, however, be recalled that the latter was essentially a target of additional production-potential and not of actual additional production. In practice, the additional production-potential created during the First Plan period amounted to 5.16 million tons only.

As regards rice, prices at first showed a declining trend in 1956-57 as crop prospects were good but tended to firm up in the earlier months of 1957 as it became clear that the market arrivals were slower than usual and that stocks with the Government were also low.

That if the production increases and prices fall marketed surplus will increase more than proportionately, owing to the tendency to de-hoarding initiated thereby. Similarly, if the production falls and prices rise, marketed surplus will decrease more than proportionately, owing to the stimulus to greater hoarding imparted thereby. But a situation may arise, with prices and production moving in the same direction, when marketed surplus may behave quite erratically.

In an inflationary situation, however, the role of expectations increases and the price tends to settle at a level higher than what would be warranted by purely technical demand and supply factors.

To the extent that corrective action is taken in time, scare and panicky rise in prices can be prevented. On the other hand, to the extent that there is delay in taking action in these areas even a small shortage may lead to a disproportionate rise in prices and consequent hoarding and fall in market supplies especially when general conditions are inflationary.

In a developing economy like ours there is always the risk that disparities of various types will tend to get aggravated unless special care is taken to even them out. Prices may rise faster at times due to a temporary imbalance of supply and demand. With a quickening pace of development, these disparities are likely to become greater. It should, therefore, be an object of Government policy to keep a careful watch over likely development of such disparities and take timely action to minimise their harmful effects.

In retrospect, the total dismantling of controls appears to have been a hasty step, particularly inasmuch as Government failed to take the opportunity to build up buffer stocks as prices fell.

A basic weakness was the absence of a well defined and coordinated policy of price stabilisation and of a machinery to implement it. Nor was there within the administration a unit charged with the specific responsibility of studying the variations of prices in their ramifications and considering by regions and sectors of the economy measures for their comparative stabilisation. The general complacency about the food situation made it difficult to realise that the bumper crop of 1953-54

came at the crest of a periodical cycle of production, and that output might not be sustained at that level. If the excess production could have been husbanded for lean years to come, the cultivators would have been assured that while under economic planning they should not expect very high prices, they would at the same time be insured against unduly low prices. An opportunity to fill the buffers with indigenous stock and thereby to ensure a measure of stability with growth under planning was, however, missed.

The necessary liaison between the Food Ministry and the Reserve Bank, particularly on credit facilities to the traders, developed slowly. Better understanding between the Food Ministry and the Port Authorities could have enabled proper phasing of imports of foodgrains and reduced loss of foreign exchange in demurrage.

We have also found that through most of the period that rice was being sold, price of rice was rising and not falling as alleged. That the stock of rice needed to be sold cannot be gainsaid. The question was asked by certain sections of the trade why fresh purchases were not made to replenish the stocks. This is explained by the fact that the reserve stocks with Government were higher than 1.5 million tons of foodgrains and by the decision against engaging in buffer-stocks operations. A somewhat inconsistent statement has been made by the witnesses who have criticised Government's disposal of rice by simultaneously charging the Government with initiating and accentuating rise in food prices with their open market purchases of relatively small quantities of rice for Kashmir and the Defence Forces. The contention that for these purchases prices higher than the ten ruling market prices were paid is difficult to sustain because the rice purchased was of better quality and the price differential covered quality differences.

Many of the shortcomings of policy or execution were, in our view, due to the strong popular preference for total decontrol of foodgrains, a preference that was not unshared in the highest levels of the administration. There appears, however, to have been a misconception about the policy of Shri Kidwai. It was during his regime that the Ministry of Food and Agriculture issued the Foodgrains (Licensing and Procurement) Order in 1952 and prepared the scheme of buffer-stock operations in 1954. Shri Kidwai was obviously not thinking in terms of having complete decontrol and leaving a vacuum behind. He had an alternative method of regulation which may perhaps be described as "regulated decontrol". Shri Kidwai's policy was, we believe, a natural development of the policy of "strategic controls" that his predecessor, Shri K.M. Munshi, had enunciated on the eve of his retirement. And it was the same policy that Shri Kidwai's successor has sought to continue.

Insufficiency of knowledge regarding marketed surplus, which has not yet been remedied, added to the

difficulties of evolving an effective food policy. In a developing economy it is not the production of food alone but marketed surplus that is of real importance.

Prospects For The Future

While assessing the effect of population growth on the demand for foodgrains, it is necessary to consider the growth in the rural and the urban populations separately.

We may expect the urban demand for foodgrains to increase by 26.3 per cent and the rural demand by 6.8 per cent which will mean about 10 per cent increase in the total demand for foodgrains. This is the extent of increase in the demand for foodgrains that we may expect only as a result of the increase in population that may take place during the Second Plan period.

We propose to consider the effect of increase in per capita income in the two areas separately. A break up of the total national product into rural and urban sectors is not available. However, the Second Plan gives a break up by main industrial sectors. In order to obtain a break up of the total product into the rural and urban sectors, we propose to treat the entire product in the sectors (i) agriculture and allied pursuits and (ii) small enterprises plus one-fourth of the product in the sectors (a) commerce, transport and communications and (b) professions and services as belonging to the rural sector.

During the Second Plan period we estimate an increase of 1.2 per cent in the per capita expenditure on cereals in the urban areas and an increase of 5.5 per cent in the per capita expenditure on cereals in the rural areas on account of an increase in the per capita total consumer expenditure. When these are combined, they give an estimated increase of 4.7 per cent in the per capita total consumer expenditure on cereals during the Second Plan period on account of an estimated increase in the per capita total consumer expenditure.

However, in the absence of relevant data, it seems reasonable to assume that similar increase in the expenditure on pulses may be expected. We shall, therefore, assume that the estimated increase of 4.7 per cent refers to the per capita expenditure not only on cereals but on all foodgrains.

In the absence of the relevant data we have no basis to judge to what extent the estimated increases in the per capita consumer expenditure on foodgrains due to increases in the per capita consumer expenditure on foodgrains due to increases in the per capita total consumer expenditure may be on account of a possible shift from inferior to superior grains. In order to indicate the magnitude of a possible shift of this nature, we shall proceed on the assumption that rice, wheat and pulses are superior grains while all other cereals are inferior grains. On this basis, the inferior grains form about 30

per cent of the existing supplies of all foodgrains. We shall further assume that the average price of the superior grains is about 50 per cent higher than the average price of the inferior grains. On this assumption, a 4.7 per cent increase in the consumer expenditure on foodgrains may cause an increase between five and six per cent in the per capita consumption of superior grains and anything up to four per cent in that of inferior grains. The increase in the per capita consumption of all foodgrains will be between four and 4.5 per cent.

During the Second Plan period, we expect the consumer demand for foodgrains to increase by about 10 per cent on account of an estimated increase in the total population. This when combined with an increase from four to 4.5 per cent in the per capita consumption of foodgrains on account of an expected increase in the per capita total consumer expenditure gives us an expected increase between 14.4 and 15.0 per cent in the consumer demand for foodgrains during the Second Plan period.

We may say that our estimates of expected increase in the consumer demand for foodgrains may be extended to the total demand for foodgrains. As such, we may expect that during the Second Plan period, the total demand for foodgrains may increase by 14.4 to 15.0 per cent.

The gross availability of foodgrains in 1955-56 was a little over 67 million tons. On this basis the total demand for 1960-61 may be roughly estimated to be 77 million tons excluding demand for variations in stocks. If it is felt that in the absence of data on stocks with farmers and traders it will not be proper to take the figure for only one year and that it will be more realistic to take the average for three years, then the average gross availability during the base period will work out to a little over 69 million tons and the estimate of demand in 1960-61 will approximate 79 million tons.

We have assumed above that the population will increase at a higher rate, namely, two per cent per annum in future. But we could also assume that it will continue to increase at the rate of one-and-a-half per cent computed by the Registrar General. We have assumed that the distribution of income will be according to a particular pattern but the future pattern of distribution could be also assumed to be somewhat different. Similarly, we have got different sets of figures regarding income elasticity of demand for different trends of prices. We do not propose to go into these details in this report. We should like, however, to mention that most of these estimates of demand range between 75 and 80 million tons. We may also note that if money incomes and prices tend to go up sharply during this period, the propensity to consume and propensity to stock will also tend to go up. In that event the demand for foodgrains may conceivably exceed even

the upper limit of 80 million tons mentioned above. For our present purpose, however, we shall assume as a working basis that the demand for foodgrains in 1960-61 will be of the order of 79 million tons (which is also obtained even on the basis of one-and-a-half per cent rate of population growth with certain alternative assumptions regarding income, etc.) if prices continue at the present levels. If there is any deflationary trend, demand may be somewhat lower. While if there is any inflationary trend it may be somewhat higher. The breakdown of 79 million tons between rural and urban areas works out roughly to 66 and 13 million tons respectively and between superior grains, namely, rice, wheat and pulses and inferior grains, namely, millets, works out to 56 and 23 million tons respectively.

Supply of foodgrains has two aspects, one of overall supply and the other of supply in the market. Supply at both these levels is affected by the same set of factors, namely, production, imports and exports and changes in stocks or inventories. The first two of these factors are the most important not only in the short run but also in the long run. The third factor may be relatively not so important for an analysis extending over a number of years although its importance over seasons within a year is undoubtedly great. Analysis of the prospect of supply of foodgrains over the next few years will, therefore, be attempted in terms of supply both at the overall level as well as at the market level and in relation mainly to the expected behaviour of production and imports and exports.

We feel that the revised targets of additional foodgrains production are no longer realistic, and future supply has to be estimated in terms of an achievement in the neighbourhood of 60 per cent of the targets laid down. This means that as against a target of additional production-potential of 15.5 million tons of foodgrains by 1961, the actual achievement is likely to be of the order of 10 million tons. On this basis, the level of output of foodgrains in 1960-61 is expected to be in the neighbourhood of 75 million tons.

If the behaviour of production in the last few years is to be taken as a guide, 74 per cent of the revised target is expected to be achieved. This estimate of the overall production needs, however, further examination in respect of its acreage and yield components.

It seems that the rate of growth of wheat and millets production taken together will in future be perhaps lower than has been the case in the past. The same is not, however, true for rice, because the growth of production in the past has been brought about very largely through increases in the yield of expansion of acreage through double cropping on irrigated lands.

Three significant conclusions emerge. First, intensification of cultivation has been proceeding and is likely to proceed at a much higher pace (about double) in the

case of rice than in the case of either wheat or other cereals. Secondly, if the present trend is to continue, the phenomenal increase in wheat output observed during the last eight years is likely to slow down considerably unless a drive for more intensive cultivation of wheat is launched. Thirdly, the case of other cereals is somewhat anomalous, though, as a whole, the picture here is a little better than in the case of wheat. In spite of decrease in acreage since 1953-54, increase in yield per acre is keeping up production proportionately higher.

Besides, for any country to make its food economy dependent heavily on the fluctuations of the world trade in other agricultural commodities is a policy fraught with grave dangers. It would, therefore, be wise to continue the present policy of emphasising increase in production of both foodgrains and cash crops.

The world availability of foodgrains has been such that we have come to depend more on wheat than on rice, and this position seems to have come to stay, more or less. Incidentally, this is crucial from the point of view of future food policy.

On present estimate, the import requirements for 1958 would appear to exceed 30 lakh tons. Once, however, a comfortable 'buffer stock' has been built up, the import requirements might be stabilised at a somewhat lower level. The need for imports would still remain. What is, therefore, needed is to ensure adequate supplies from the major exporting countries on a long-term basis.

Price Stabilisation

We think that full control should be resorted to only in cases of emergency like war or famine or extreme inflationary pressures. We do not visualise it as a permanent feature of our developing economy.

The type of controls that we envisage would be largely of a flexible and indirect character, designed to be adapted to changing situations and such as would not require an army of officials exercising restrictive powers for their implementation.

In a period of inflation even a small seasonal rise tends to stick and to accentuate the general tendency for prices to rise. Purchase of stocks in the harvest season and selling the same in the market at a reasonable price in the lean season is an effective way of preventing undue seasonal rise in prices. In a country like India where there is considerable transport difficulty and markets are imperfect it is only natural that there should be regional differences in price. To the extent that these regional variations are caused by transport difficulties they cannot be eliminated until the basic difficulty is overcome. But if semi-monopolistic elements in the trade exploit the regional variations taking advantage of the imperfections of the market, there is strong case for the State to intervene with a view to keeping the prices within reasonable limits. If in a period of

inflation or deflation prices in particular regions are allowed to go up or down sharply they generate similar movements in other regions. Hence, the prevention of regional variations becoming abnormally large is important in times of inflation or deflation. The long-term remedy for such disparities is no doubt the improvement of transport facilities and general economic development. But, in the short period considerable relief to the situation can be afforded by the State buying the surplus in surplus areas and meeting the deficit in areas where shortages exist. Finally, there may be an abnormally sharp rise or fall in prices of some commodities compared to that of others with the result that the cost of production of the commodities and the cost of living of the cultivators are affected very differently from what happens in the other sectors. Such distortions of the price structure also create considerable strains and stresses in the economy and if allowed to persist tend to change the consumption and production pattern in such a manner as may adversely affect the whole economy and also upset the allocation of resources envisaged in the Plan. It is important to prevent such sectoral imbalances also as far as practicable.

The main characteristic of a rational system of price stabilisation which seeks to avoid both complete laissez and rigid control should be on the one hand to allow the trade to function on a competitive basis within certain broad limits and on the other to regulate it by suitable countervailing action, over-all as well as selective, by public authority.

In fact according as the circumstances change the nature of the action to be taken as well as the types and combinations of measures must also change correspondingly. There may be some measures which require to be taken on a long-term basis while others may be of a relatively short-term character, being liable to be altered according to the situation as prices show an abnormal rise or fall.

Indeed, monetary and credit policy has to a considerable extent to be adapted to the economic climate created by the general state of fiscal policy or the budgetary operations of Government. If these operations themselves give rise to considerable inflationary tendencies, while the ability of monetary and credit policy by itself to restrain such tendencies is limited, its general tone is indicated by the extent of such tendencies. In this context, while a general cheap or dear money policy may produce a certain effect on over-all price trends, it can be usefully supplemented by a policy of selective credit control for preventing abnormal fluctuations in prices of particular essential commodities like foodgrains, as has been shown by recent experience. Selective credit control has, therefore, to be continued to be used as a flexible instrument of some proved efficacy to curb any undue speculative tendencies. Export and import

quotas and duties can also be manipulated with a view to regulating the prices of important commodities having a bearing on food prices which are exported or imported on a significant scale. Excise taxes and subsidies are other fiscal tools available to influence the consumption and production pattern of various commodities in the desired direction.

While the general climate would thus be set by appropriate fiscal, monetary and credit policies, it is obvious that in the general economic and monetary situation that is likely to prevail for some time these have to be supplemented by certain specific action directed to controlling foodgrains and also in respect of related commodities if comparative stabilisation of their prices is desired. These measures are, however, to be used judiciously and in different combinations under different circumstances.

In our view, the formal announcement and effective enforcement of minimum prices throughout the country should be necessary in conditions when there may be a possibility of prices falling sharply. The cultivator does require the assurance that prices will not be allowed to fall below economic levels to maintain his incentive to invest in the improvement of his farm and, thereby, sustain the basis of progressive agriculture. This assurance will, in our view, be available if the general framework of our recommendations is accepted and it is decided to set up an organisation charged with the function of operating in the market and equipped with resources to do so and to counteract through its operations the amplitude of fluctuations which tend to occur. Over and above this, we believe that assurance of the kind that Government recently extended through its Press Note on June 14, 1957, could have a limited use in reinforcing the confidence in Government's policy in this sphere. If, however, certain areas are cordoned off for facilitating certain operations, the announcement of a minimum price would become essential.

We consider that to ensure a level of prices which would provide the necessary incentive to the producer with due regard to the interest of the consumer and the maintenance of reasonable cost structure in the country, as stated in our terms of reference, it is essential to set up such an organisation and machinery for coordinated formulation of measures to be taken from time to time to this end, and implementation of the action proposed by way of market operations within the range of prices and subject to the conditions determined.

We recommend, therefore, firstly, the setting up of a high-powered authority for the formulation of the policy for price stabilisation in general and determining the programme for enforcing it from time to time and, secondly, the establishment of a suitable organisation to execute that part of the policy and programme framed by this authority as may relate specifically to purchase

and sale operations in the field of foodgrains. The policy-making body may be called the "Price Stabilisation Board" composed of representatives of the Ministries of Food & Agriculture, Finance, Commerce and Industry and Railways, Planning Commission and the Reserve Bank of India, with a Chairman of the status of Secretary to the Government of India. Food, no doubt, forms the core of our price structure, but prices of competing crops like cotton or oilseeds and of industrial products like cloth, fertilisers, iron and steel etc., are all very important from the point of view of an effective price policy for the country and have to bear a reasonable relationship to food prices. It is only a high-level authority as proposed above, which is properly integrated into the machinery of decisions within Government on economic questions, that will be able to deal effectively with the problem of price stabilisation. The Board should examine not only the food prices as such, but also the prices of all related consumer and producer goods, e.g., cloth, oilcake, fertilisers, iron and steel, etc., study the various margins charged at different stages before sale to the cultivator and make appropriate suggestions. It should be possible for a vigilant Price Stabilisation Board to help in maintaining a reasonably stable price structure by ensuring better coordination of the various measures bearing on prices of foodgrains and other related commodities. As regards the executive organisation for dealing specifically with foodgrains, we think that it would be desirable to set up under the Ministry of Food and Agriculture a separate body called the "Foodgrains Stabilisation Organisation".

It will also be desirable to set up a body of non-officials called Central Food Advisory Council to assist the Food Ministry and the Price Stabilisation Board. The Council should be composed of representatives of agriculture, trade, industry, workers, consumers, banks, cooperatives, leading political parties and economists. It will meet as often as necessary but at least twice a year in connection with the kharif and rabi seasons. It will consider the various aspects of the food problem, long-term as well as short-term. Its views will be placed before Government and before the Price Stabilisation Board to help the latter in the formulation of price policies and programmes.

We have noticed that at present considerable misunderstanding is being caused in the public mind by the concentration of attention on the wholesale price index alone. The Division should be able in due course to supply a corrective to this situation by presenting a much wider series of indices relating to prices, incomes and employment in a coordinated and easily intelligible form to the general public from time to time.

Foodgrains Stabilisation Organisation

We consider, however, that for the specific functions

of open market purchase and sale, procurement of foodgrains and maintenance of stocks, it will be desirable to have a separate organisation called Foodgrains Stabilisation Organisation under the Ministry.

This Organisation will not only take a part of the work that the Directorate General of Food is handling now but will also operate as a trader in the foodgrains market, with branches or agencies of its own in all important mandis, particularly in surplus areas and centres of distributive trade. This Organisation may either be a department of the Ministry or a statutory corporation or a limited company. Each of these alternatives has its advantages and disadvantages. Considerable experience of all these three forms of organisation is available to Government who will be in the best position to consider what the right organisation for such a purpose should be. We have not been able to estimate how much working capital will be required by this Organisation. It should, not, however, be more than what was required by the Food Administration during the days of control. We feel that in the beginning this Organisation should be able to manage with a capital of about Rs. 100 crores, which may subsequently be increased as its business expands.

In our view, buffer stock operations can be a most effective instrument for the stabilisation of the prices of foodgrains. The main idea of such operations is simple. Whenever prices tend to fall, even if such a fall is not general but is confined to a particular locality, this Organisation should step in and start purchasing at reasonable prices. Similarly, when prices tend to rise, this Organisation should sell at reasonable prices. The Organisation will, from time to time, have to fix limits of prices at which it would buy or sell, within the range of prices for its operations which will be fixed by Government on the advice of the proposed Price Stabilisation Board.

It should also be able to purchase fairly large quantities from depressed pockets where competition from the trade is usually weak. The Organisation will normally be buying in the harvest season and in the depressed pockets and selling in the lean season either of the same year in which it buys or in a subsequent year when there is a short crop. Therefore, ordinarily, there should be no risk of loss for such an organisation, especially over a long period of, say, five years. Even if there is some loss, it would be a worthwhile premium to pay for insurance against instability.

We feel that step by step conditions should be created so that in course of the next three or four years the Foodgrains Stabilisation Organisation may be in a position to control a substantial proportion of the wholesale trade in the country.

We would like to emphasise here that until there is social control over the wholesale trade we shall not be

in a position to bring about stabilisation of foodgrains prices. Our policy should, therefore, be that of progressive and planned socialisation of the wholesale trade in foodgrains.

Our proposal that the Foodgrains Stabilisation Organisation should have a dominant share in the foodgrains trade in the country should not be regarded as something which is extraordinary.

Although we believe that the Foodgrains Stabilisation Organisation will be able to control a large part of the marketable surplus during normal years, in the immediate future so long as inflationary trends continue and food shortage persists, open market purchases may push up prices so that the Organisation may find it necessary to stop its operations. Therefore, it will be necessary to undertake some form of compulsory procurement for replenishing the reserve stocks and maintaining supplies to vulnerable sections of the population at reasonable prices.

It will be necessary to resort to some form of compulsory procurement to ensure that at least six to seven lakh tons of rice is procured from the surplus areas in the country.

There are several ways in which compulsory procurement may be enforced. The simplest way would perhaps be to cordon off certain areas and make the Foodgrains Stabilisation Organisation the sole buyer in these areas for the purpose of export. States of Orissa and Punjab should remain cordoned off and the export of surplus rice from these States should be controlled by the Foodgrains Stabilisation Organisation. Although Orissa is a surplus State, the pressure from Calcutta, Jamshedpur and other industrial areas of West Bengal and Bihar with high purchasing power often denudes it of its stocks, raises prices abnormally and creates distress for the local population. Cording off of Orissa is, therefore, a necessity. So far as Punjab is concerned, rice is being produced mainly as a cash crop for export and the production has gone up considerably in recent years. Hence, cording off of the whole of that State for the purpose of procuring rice should not create any special difficulty. We believe that in a normal year, it should be possible for the Organisation to procure about three to four lakh tons of rice in Orissa and Punjab. The delta districts of Andhra Pradesh and the Chhattisgarh area of Madhya Pradesh are also generally surplus in rice. It should also be possible to export to States not included in the present rice zones—the continuance of which we recommend later—three to four lakh tons from these two areas without upsetting the local price structure. On the other hand, if these States are cordoned off as a whole or an attempt is made to take away from these areas larger quantities, the present zonal balance may be upset causing considerable difficulties. One way, therefore, may be that every

year only two to three districts in these areas which are likely to yield the requisite surplus may be cordoned off, and the entire surplus mopped up. Alternatively, the whole area may be cordoned off and out of the surplus procured certain quantities, say, two Jakh tons from each area may be taken away from the State and the balance sold back in other areas of the State itself. We are in favour of this alternative. Under this alternative the districts of Tanjore and Tinnevelly in Madras would also be cordoned off for procurement of rice, which should then be released to the deficit areas within the southern rice zone itself. If it is decided to impose any restriction for the purpose of procurement in a few districts of a State, it would be essential not only to ensure that the prices ruling in the cordoned districts are reasonable and are not substantially lower than those obtaining at least in the harvest time in neighbouring districts but also to provide special Grow More Food assistance to the farmers of the cordoned districts to obviate any sense of grievance that the rest of the country is exploiting them unduly.

If it is felt that in any area cordoning is not practicable for some reason, one or more of the following systems of procurement may be tried according to local conditions and the relative proportion of the quantity to be procured to the quantity produced. One alternative may be a levy on all rice and flour mills as also on all private traders making purchases in major primary mandis. This method will work only if the quantity to be procured is relatively small compared to the total production and the levy price approximates to the market price at the harvest time. Another alternative is a fixed levy of foodgrains for every acre of land which a farmer possesses above a fixed limit, say 10 standard acres. Another method may be to collect the price of fertilizers and repayment of loans given by Government in the form of grains, the prices at which grains have to be evaluated being fixed previously. This method, we are afraid, may not be feasible until State-owned or cooperative warehouses are set up in sufficient numbers in the areas concerned. Credit given by cooperative societies may be also linked with the marketing of grains and all grains collected by cooperative societies purchased by the Foodgrains Stabilisation Organisation at an agreed price. This method also, we feel, may not be feasible in the areas concerned until the cooperative movement has made very considerable headway. It has been suggested to us by many witnesses that land revenue and irrigation charges should be collected in grain. This proposal has some merits as well as several demerits and on a balance of considerations we do not recommend it. The main attraction of this proposal is that it will enable fairly large quantities to be procured without creating undue resentment. On the other hand, since most of the payments will be small, the cost

of collection will ordinarily be very large. The total cropped area in the country is over 360 million acres and the incidence of land revenue per acre of cropped area is only Rs. 2.24 on the average. Also the dangers of corrupt practices by petty officials will be large.

It has been suggested to us by a number of witnesses that maximum prices should be announced every season when price trends are inflationary and Government should take powers to requisition stocks whenever prices go beyond these levels. At the same time, for allaying fears of the farmers that prices may be depressed as a result of zonal cordons and other Government action, minimum prices should also be fixed at which Government should be prepared to buy whatever quantity is offered. These prices should be varied from season to season in the light of various factors, e.g., trends of costs, incomes, price parities. We agree that various relevant factors, e.g., cost of production of the concerned foodgrains and competing crops, cost of living of the agriculturist and industrial labour relative movements in prices of food crops and cash crops, and in incomes of agricultural and non-agricultural workers, may be examined. In the light of all this information and in consultation with the Central Food Advisory Council the range of prices within which the Foodgrains Stabilisation Organisation may carry on its operations may be determined every year and from time to time by the Price Stabilisation Board. It is however, important that no single formula should be announced or relied upon. While a number of formulae may be taken into account, we recognise that the final decision would have to be taken by the Board on a somewhat ad hoc basis, particularly owing to the importance of prospective price trends in any assessment of the reasonable prices which might guide operations of the Organisation, for no formula can satisfactorily reflect the prospective position. It has, indeed, been the experience of most countries that no formula can fully cover all contingencies. On the other hand, adoption of a particular formula makes the price policies so rigid that it becomes very difficult to introduce any flexibility even when broader considerations require it. Besides, the prices at which the Foodgrains Stabilisation Organisation should be prepared to buy whatever is offered to it and which it should announce at suitable times the administration should have powers to fix the prices at which the State should be prepared to requisition stocks bound by traders or big producers. At present, there is a provision that the Government can requisition any stock by paying the average price for the previous three months. We understand that this provision is creating considerable difficulties in practice. We consider that powers should be obtained to give statutory recognition for the purpose of requisitioning at the prices that may be fixed by the Price Stabilisation Board as suggested

above. For the current year we feel that prices for coarse paddy may be fixed at between Rs. 9.25 per maund and Rs. 11 per maund and of rice between Rs. 15 and Rs. 17 per maund for fair average quality which will be considered generally reasonable all over the country. Similarly, prices for wheat between Rs. 13 per maund and Rs. 15 per maund for fair average quality would be considered such as would give a reasonable incentive to the producer and be fair to the consumer and would also pay due regard to the cost structure in the country.

We would like to reiterate that the prices at which the Foodgrains Stabilisation Organisation would be prepared to buy should be economic prices and should be kept reasonably stable to give confidence to the producers.

One of the key measures that will be necessary for making the system proposed above really successful will be the licensing of all dealers in foodgrains. We feel that an order on the lines of the Foodgrains (Procurement and Licensing) Order, 1952, should be issued and strictly enforced. All the traders and big producers in the country who may deal in and stock more than 100 maunds of foodgrains should be required to take a licence. One of the terms of the licence should be that traders will submit fortnightly returns of their stocks, sales and purchases to the prescribed authorities. A further clause may also be added to the licence to the effect that the traders will stop purchase or sale in the district concerned whenever Government may order them to do so and that they will also confine the sales or despatches to particular areas if Government so direct them. We feel that these powers may not have to be exercised ordinarily but it will nevertheless be useful to have these powers.

One of the most important tasks of the Foodgrains Stabilisation Organisation would be to build up and maintain adequate reserve stocks as distinct from any buffer stocks that it may build up from operational considerations. It was the experience in 1955 that even a stock of 1.5 million tons was not sufficient when a real crisis began. Stocks were depleted rapidly as soon as prices started rising but it was not found practicable to replenish them. We are aware that the Government have taken a decision sometime back to build up a reserve stock of two million tons, half of wheat and half of rice, but we are nevertheless emphasising the point in view of the fact that even now the stocks are less than 50 per cent of the target. It is very important that the Government should not only maintain a reserve stock of at least two million tons as decided by them but should arrange for adequate replenishments as soon as they tend to fall below that figure. One advantage of these reserve stocks being maintained by the Foodgrains Stabilisation Organisation would be not only to facilitate

storage but also to ensure timely turn-over. Reserve stocks as distinct from buffer stocks should be maintained at certain special points. In our view, these points in order of preference should be (a) ports and metropolitan areas, (b) chronically deficit areas, (c) areas generally affected by floods and drought and (d) important centres from the point of view of transport, e.g., Mokameh, Manmad, Nagpur, Kanpur. Adequate arrangements should also be made for revolving this stock and this turn-over operation should be undertaken in a manner such that it may not unduly upset the market. Turn-over operations of the reserve stocks will also be facilitated by the maintenance of a large number of fair price and modified ration shops that have already been set up in the country.

All the imported grain comes into the hands of the authorities and the entire amount is available for distribution. On the other hand, procurement can only be a fraction of the production. Although during inflation procurement becomes unavoidable, it gives a spurt to the price level which does not get fully corrected when the procured quantity is released.

We should, therefore, be prepared for importing a substantial amount of foodgrains during the next few years. It is important that we should make every effort to enter into a long-term arrangement with Burma. India's share in the total exports of rice from Burma stood at 41 per cent in 1954; this share declined to 17 per cent in 1955 and to 15 per cent in 1956 but increased to 25 per cent in 1957. As rice is the main source of foreign exchange for Burma, the Government of Burma appointed a Special Committee in June, 1956 to make recommendations for planned development of rice acreage during the four years 1956-57 to 1959-60. The Government of Burma have planned for an increase in the acreage under paddy by 12 lakh acres in this four-year period. They are also planning an increase of exports of rice by two lakh tons per year for the next few years. Already, the exports of Burma have gone up from 14.6 lakh tons in 1954 to 20 lakh tons in 1957, an increase of 5.4 lakh tons in four years or an average of 1.3 lakh tons a year. With the prospect of Burmese exports being stepped up by two lakh tons per year in the next few years, it should be possible for Burma to export upto eight lakh tons of rice per year to India. At any rate, it is possible to obtain from Burma large quantities of rice than are provided for in the existing five-year agreement. The question as to what form any long-term agreement with Burma should take may be examined by Government.

We feel that it would be to our advantage to take fairly large quantities of wheat and some quantities of rice from the U.S.A. under P.L. 480. For imports under such concessional terms not only relieve us of our immediate foreign exchange commitments but also help us to

build up a rupee fund which can be utilised for development purposes. One of the conditions of P.L. 480 is that we should continue to import our normal requirements at ordinary commercial terms. This means that we shall have to continue to import about 5.5 lakh tons of wheat from Australia, Canada, U.S.A. and other countries under normal commercial terms. We feel that all this import of rice and wheat supplemented by some quantities of coarse grains will continue to be necessary if our development outlay is maintained at the level proposed in the Second Plan.

With long-term agreements concluded with U.S.A. and Burma, India would be able to assure herself of certain quantities of foodgrains from abroad in the years to come. That assured supply of foodgrains from abroad would enable the formulation of a stable and long-term food policy needs no emphasis. In fact, assurance of continued imports of certain quantities of foodgrains will constitute the very basis of a successful food policy for some years to come.

Short Period Measures

We propose now to refer to some short-term measures relating to control of distribution and trading in foodgrains as well as certain miscellaneous matters including food administration.

An important method for distribution of Government supplies which provides for a measure of relief to consumers through assuring them the benefit of Government procurement operations at reasonable rates is by selling foodgrains through fair-price shops or modified ration shops or through institutions like cooperative societies or employers' organisations. Consumers' groups should be encouraged to form cooperative shops and large employers of labour should also be persuaded to run their own fair price shops. Where such shops cannot be set up, Government should set up their own shops. In some areas it may be more convenient to entrust these shops to the trade. But in such cases there should be a strict system of supervision to check corruption and a system of identity cards should invariably be introduced.

Sales from fair-price shops, etc., should be normally made on a "no profit no loss" basis so far as Government is concerned. This in itself should prove to be of benefit to a large group of people. In view of its relatively easy supply position, wheat may be issued freely upto a full quota of 12 oz. per adult per day from these shops, since every one will be free to supplement from the open market. The issue of rice, which is in short supply, may ordinarily be not more than eight oz. per adult per day in South India, six oz. per adult per day in East India and four oz. per adult per day in other areas. Moreover, this amount should be issued only if the purchaser agrees to take the balance of 12 oz. in the shape of wheat. This will not only help in economising rice but also in popu-

larising wheat. In allocating supplies to different areas care should be taken to keep in view local preference e.g., parboiled rice should be supplied to Calcutta, Punjab wheat should be supplied to Delhi and so on as far as practicable as otherwise the pressure on the market for the supply of the preferred variety increases unduly and thus gives rise to a price spiral. Besides, superior and inferior qualities of grain need not all be sold at the same price. There should be no objection, for this purpose, to charging higher prices for the more preferred varieties even compared to the "no profit no loss" price utilising the proceeds for reducing the pool price on the less preferred variety. It has been represented to us that if the same price is charged for more preferred and less preferred varieties then the pressure on the fair-price shops tends to be very elastic. It goes up suddenly when the more preferred variety is issued and goes down suddenly when the less preferred variety is supplied. Similarly, there seems to be a good case for making a small difference in price between the harvest season and the lean season. The grain becomes more dry in the lean season when the consumers are also used to paying a higher price. If the sale price from the fair-price shops is raised to a small extent in the lean season that would only follow the normal seasonal pattern and would have a healthy effect on demand. Besides the "no profit no loss" basis may be applied in terms of even a longer period than what is taken as the basis of the present calculations. On the whole, some of the above suggestions amount to making the sale operations of the fair price shops less rigid and more responsive to market considerations than they are at present. As such they are calculated to reduce the malpractices and corruption observed in their working, to which we refer presently.

We feel that a practicable solution may be to give to each fair-price or modified ration shop a limited number of what may be called "relief quota cards". The issue of these cards may be limited to special categories of persons e.g., expectant and nursing mothers, sick and convalescents, teen age children of families below a certain per capita income limit. The distribution of these cards may be looked after by a responsible Government officer in consultation with a small representative committee of citizens of the locality. A rule should be made that in no case should subsidised grain be sold except on the basis of "relief quota cards". At present whatever subsidy Government is able to provide seems to get dissipated over a large number of recipients each of whom get only a small relief. In the system proposed by us while a larger number of people will get moderate relief from the normal sale of unsubsidised grains through fair-price shops, a smaller number of really distressed people will get much more substantial relief from the sale of subsidised grain on the basis of relief quota cards.

Now that we are recommending the system of fair-price shops or modified ration shops to be maintained as a regular measure for providing relief to vulnerable groups of the population, it is necessary that these shops should be organised on a basis of properly supervised distribution. For each fair price or modified ration shop there should be a small local Committee of officials and non-officials which should meet at least once a month in the early stages of working of the shops. This Committee should supervise the work of the shop as also the preparation of lists of vulnerable families, distribution of identity cards and "relief quota" cards. The non-officials should be nominated after consulting all the important local interests concerned. Apart from these local committees there should be a strict inspecting organisation for supervising and exercising vigilance over the work of all these shops.

As we have noticed earlier, some of these cities tend to have a de-stabilising influence on the prices of food-grains in neighbouring rural areas. The cordoning off of these cities will go some way to relieve distress in these latter areas.

The possibility of obtaining modification of the system of zoning also encourages political pressure. Prior arrangements for adequate supplies for deficit areas outside the zones should invariably be made before any scheme for zoning is implemented. Once a zone is formed it should be maintained on a relatively long-term basis so that the trade patterns are not frequently disturbed.

At present there are three zones in the country. There is a southern rice zone comprising the four States of Andhra Pradesh, Mysore, Madras and Kerala. There are two wheat zones—one comprising Punjab, Delhi and Himachal Pradesh and the second Rajasthan, Madhya Pradesh and Bombay State. In addition to these, Orissa has been cordoned off for rice and U.P. for wheat. When these zones were first formed they created some dislocation for an initial period and caused distress amongst the vulnerable groups of the population outside the zones. But now that the trade has adjusted itself to these new zones and they are working without difficulty, we do not propose to change these zones at this stage. After the Foodgrains Stabilisation Organisation has started purchasing and procurement of rice is made as suggested, e.g., in the surplus areas of the southern zone and the Organisation itself transfers the surplus to deficit areas the utility of the zone may be somewhat reduced. On the other hand, in the initial stages of working of the Organisation the existence of the zone may be definitely helpful to its operations. The time for removal of the zone will, therefore, be only after some experience of working of the Foodgrains Stabilisation Organisation has demonstrated that the zone is no longer necessary; till then the zone may remain.

We understand, however, that if the supply of wagons for foodgrains is to be controlled in this manner it may be necessary to amend the Railway Act suitably. Transport policy will play an increasingly important role in implementing economic policy and requires to be closely integrated with policy regarding distribution and prices of foodgrains. That is why we have recommended earlier that the Ministry of Railways should be represented on the Price Stabilisation Board and it will defeat that recommendation if the Railway Ministry is not given necessary powers for implementing any policy that the Price Stabilisation Board may recommend.

In view of the large regional disparities of price movements and importance of local price rises, we recommend that a special cell or section should be set up within the State Governments with particularly heavy incidence of scarcity and also at the Centre within the Food Ministry for the purpose of anticipating difficulties arising out of possible floods and drought, locating scarcity pockets and initiating prompt measures to deal with them. Such organisations are important for preventing scarcity developing into a scare and causing speculative rise in prices in other areas.

We would recommend that the Development Commissioner in each State should be made specially responsible for schemes of development of these areas. The problems of these areas should also receive special attention at the hands of State and Union Governments in such adaptation of the development programmes and projects as might be considered from time to time.

It is also necessary to promote arrangements to conserve more grain in the rural areas for the lean season. We suggest that for the purpose village panchayats and cooperatives should be encouraged, through advances where necessary, to set up grain golas on the lines of those set up in Orissa in recent years where sufficient quantities of grain should be stored for the lean months. Grain golas may provide at least partial assistance in meeting seasonal scarcities in some of the vulnerable areas. It would also be desirable to liberalise the famine code which was originally drafted to take care of a different type of food shortage to provide now for this new type of seasonal shortage also. We would recommend that provision of more funds for relief works in these areas should be considered. Besides, the distribution of "relief quota cards" should be more liberal in these areas. We recognise that all these will be at best only temporary palliatives. The more effective and permanent remedy will be setting up of rural industries and improvement of local agriculture by undertaking appropriate development measures.

We believe that the Central Food Advisory Council on which all interests, political, commercial, agricultural etc., will be represented will regularly bring to the notice of Government the views of the informed public. It will

be desirable to set up similar advisory bodies also at the State level.

We would recommend that the Food Administration should be put on a permanent footing and all consequential action should be initiated to improve its efficiency.

We would recommend that a special division should be set up in the Ministries of Food and Agriculture in the Centre as well as the States to promote the production and consumption of subsidiary foods.

Production And Marketed Surplus

We believe that if full use is made of all our resources, it may still be possible to reach closer to the Plan target than the above estimate. The prospect of a shortfall from the Plan target has, however, to be faced, unpalatable though its implications may be.

While we do not advocate any diminution in the allocation to major irrigation, we recommend that a careful examination should be made of all major irrigation schemes, and, if there is likely to be a shortfall for any reason, from the target of expenditure on them, the funds that may remain unspent should be reallocated to minor irrigation, which promises quicker results. The procedure for such reallocation may be examined and if possible simplified and made more expeditious.

We recognise that an even phasing of the targets during the five years may not be entirely feasible and that some bunching of the targets in the last year or two of the Plan is unavoidable. However, the less the crowding in the later years of the Plan, the greater will be the chances of fulfilment of the entire targets. We believe that there is scope for more even distribution of the targets so that the earlier years of the Plan receive their due share.

We give below what in our view are fair estimates of the achievements that are likely to take place in the Second Plan period.

Schemes	Production targets (million tons)	Achievements as of percentage of production targets	Additional increase in production
Minor Irrigation	1.89	95	1.80
Fertilisers and Manures	3.77	80	3.02
Improved Seeds	3.42	60	2.05
Land Reclamation and Development	0.94	75	0.71
Improved Agricultural Practices	2.47	50	1.24
Major Irrigation	3.02	50	1.51
Total	15.51	66.6	10.33

In making these estimates, we have first borne in mind that the phasing of the Second Plan targets is similar to that of the First Plan targets and the achievements are, therefore, likely to follow the same pattern. Thus the ratios for all the schemes except fertilizers and manures have been estimated at a level only slightly higher than what was realised in the First Plan. The likely achievement ratio for fertilizers and manures has, however, been estimated much higher than in the First Plan because the evidence shows that the demand for fertilisers has already outstripped the supplies provided for in the first two years of the Second Plan. In fact the achievement ratio could have been taken at even more than the 80 per cent if there had not been the fear that difficulties of foreign exchange might interfere with the fulfilment of the target. There is scope for stepping up effort in respect of the seed schemes. The possibility of obtaining large increases in foodgrains production during the next three years thus seems greatest from the schemes for fertilizers and manures, improved seeds and minor irrigation.

We believe, that there are certain inherent problems in major irrigation, that have not been solved and are largely responsible for this state of affairs.

We are of the opinion that in areas where full use of irrigation facilities needs to be encouraged, cultivators, should be supplied irrigation water at concessional rates during the first few years. The C.D. and N.E.S. blocks in such areas should include as a part of their programme an intensive campaign to teach the cultivators the use and benefits of irrigation.

In a number of areas where rainfall is usually sufficient, irrigation facilities are in the nature of a security measure to be used only when rainfall is untimely or inadequate. In such cases, the full extent of irrigation available is not utilised. It has been suggested that in these areas a more intensive use of land should be made through the production of two or more crops. For example, unless double cropping is introduced there is little prospect of additional production from the Mayurakshi project and the irrigation system of the D.V.C. in West Bengal. Such changes can be brought about only if sufficient inducement by way of concession or exemption from water charges for the second crop is given to the cultivators during the first few years.

We recommend that the responsibility for the construction of the subsidiary channels should generally be on the Irrigation Department.

The lay out and the construction of the distributory system should, therefore, be done after proper consultation with the local people and after taking into account the special needs of each locality.

We suggest that the cultivator may be helped with credit and other facilities.

It is important that ways and means are devised to

ensure that irrigation from tube-wells is properly utilised. Our recommendation regarding water rates for major irrigation also hold good for medium irrigation.

It has been represented to us in certain States that electricity for irrigational purposes was being supplied at rates higher than were charged for industrial purposes in the same areas. This raises a policy issue regarding the relative importance and needs of power for irrigation vis-a-vis industrial use. We suggest that the question be examined.

In some States, it was stated that small irrigation works which had formerly been kept in repair by the zamindars are not now being maintained in proper condition after the abolition of zamindaris. This is a matter which requires immediate attention by the State Governments.

It is essential that in the remaining years of the Second Plan the allocation for minor irrigation be separated out into two accounts, one for repair and maintenance and the other for new projects. The repair of the existing works should be given as high a priority as construction of new works.

In Assam large low lying areas in the valley regions offer considerable scope for growing a variety of spring paddy locally known as *boro* paddy, provided irrigation pumps are supplied to the cultivators on reasonable terms. This suggestion should be examined by the State Government.

In Rajasthan, it was represented to us, that artesian well irrigation had produced good results. Cultivators were given 50 per cent of the cost of well as loan. Many farmers, however, could not avail themselves of this because they could not raise the remaining 50 per cent. It was suggested that the amount of Government loan in such cases should be raised to 75 per cent of the cost. The suggestion should be considered.

The question of providing technical staff to the States for undertaking surveys of water resources should be taken up by the Government of India.

The Grow More Food Enquiry Committee (1952) recommended the setting up of cooperatives of growers for this purpose. We are in agreement with this recommendation.

We stress the urgency for greater progress in this direction particularly since seed schemes require hardly any more funds for a given level of achievement than the other G.M.F. Schemes.

All States should ensure that the procedure for acquiring land for seed farms is simplified so that delay is avoided.

In view of the large potential of improved seeds to increase food production, the number of seed stores in each block should be increased to at least four per block so that improved seeds are brought to the door of the cultivator.

Complaints of delay and adulteration of seed are widespread. State Governments should take administrative action to ensure timely supplies of pure seeds.

We recommend the setting up of more factories for producing chemical fertilizers in India. One way to meet the foreign exchange requirement that would arise in this connection would be either to invite foreign firms to participate with Government or with private enterprise in setting up these factories or even to give them scope to set up factories on their own. In view of its importance as a producer of rice and consumer of fertilizers, Andhra Pradesh would be suitable for location of one such plant.

As regards manures, we emphasise the urgent need to develop local manurial resources, e.g., night soil, farm yard manure, compost, green manure.

The National Forest Policy Resolution of 1952 proposed that the area under forests should be raised steadily to 33 per cent of the total area, the proportion to be aimed at being 60 per cent in the hilly region and 20 per cent in the plains. Very little has been done to implement this resolution. The low percentage of forests in the plains has many harmful effects on agricultural production as has been repeatedly stressed. We recommend that the National Forest Policy Resolution of 1952 should be accepted as early as possible, particularly as regards its provision that the wooded area in the plains should be raised to 20 per cent.

In fact, there is reason to think that some of the land now classified and used as agricultural land could be more profitably turned into forest. This is where the land is of poorer quality, which hardly repays the cost of cultivation but which would become an economic asset if turned into a wooded area. A careful examination of land utilisation from this point of view is, therefore, an urgent necessity.

It seems that if the present pace of reclamation and development work is not stepped up, much less than 75 per cent of the Plan target would be achieved. In Rajasthan, it seems, that a substantial increase in production can be brought about through conservation of rain water by permitting it to percolate in the soil by building with sand. This method, we understand, has large potentialities.

Since one of the difficulties in this direction is the lack of trained personnel, we would recommend to the Government of India to increase the facilities for training in soil conservation methods.

Some other points that were brought to our notice related to (a) difficulties experienced by mechanised farms in obtaining adequate and reasonably-priced spare parts; (b) indiscriminate imports of tractors of unknown makes and without adequate facilities for training and servicing; and (c) lack of follow-up cultivation of reclaimed land. Solution of the first two difficulties has to be

sought through restricting the licensing of imports of tractors and mechanical equipment only to such firms as would guarantee training and servicing facilities. Such a decision has already been taken by the Government of India and we recommend that it be enforced strictly. Regarding (c) we suggest that necessary administrative steps may be taken by the State Governments for transfer of reclaimed lands to cultivators immediately after reclamation so that no delay takes place in follow-up cultivation. The question of reducing the cost of diesel and lubricating oils also deserves to be looked into.

However, we have no doubt that as the extension service gets more firmly rooted and production-oriented, substantial increase in production can be brought about by better trained and organised staff. In the opinion of many witnesses it was being too optimistic to expect an increase of 50 per cent in the food production in irrigated areas and 30 per cent in dry areas until production orientation has attained the desired level. We are inclined to agree with this view.

We learn that the Ministry of Community Development has recently re-oriented its programme and policy so that food production received a high priority. We emphasise that these decisions be implemented effectively and quickly. The most far-reaching suggestion extended to us all over the country was that the control and guidance of agricultural programmes in N.E.S. and C.D. areas should be transferred from the non-technical hands of the N.E.S. staff to the technical hands of the State Agricultural Departments. The unduly large jurisdiction of the village level worker was also pointed out to us as a drawback. We do not consider it necessary to go into the subject of C.D. and N.E.S. areas in any great detail. A pointed reference to the administrative difficulties of these areas has been made by the C.D. and N.E.S. Areas Team under the leadership of Shri Balwant Rai Mehta. We understand that recommendations of this Team for the decentralisation of administration at the block level through the formation of statutory block boards on a democratic basis are receiving careful consideration.

We recommend that the aim should be that every Tehsil should have at least one agricultural high school, and that as far as possible all ordinary secondary schools in rural areas should adopt the syllabus for agricultural bias prepared by the All India Council for Secondary Education.

The state of higher education in agriculture is no better. There were in the entire country only 18 Agricultural Colleges in 1954-55. These colleges had 4,827 pupils to meet the growing demand for trained personnel. The number of agricultural colleges requires to be greatly increased.

In our opinion, the State Governments should proceed expeditiously with enacting the necessary legisla-

tion for land reforms and, what is more important, following it up with effective implementation. This should indeed contribute to the growth of agricultural production in the country.

What is needed is a stronger decentralised administrative effort in the rural areas, with adequate non-official cooperation to follow up the land reforms legislation with proper enforcement.

Consolidation operations should, therefore, always be carried out with as much speed as possible.

The importance of devoting greater attention to the improvement in design and manufacture of indigenous farm implements, irrigation and transport devices, was also brought to our notice. It was claimed that simple, cheap and easy to repair, hand and bullock-driven devices fall more readily into the pattern of our country's rural economy than imported machinery. At this stage of the country's development we agree with this point of view.

We feel that the seriousness of this menace should be recognised by the Government and steps taken by them for effectively decreasing the number of such cattle.

There is urgent need for modification in the present administrative and financial procedures of the Union and State Governments. What is needed is synchronising the procedure for executive approval and financial sanction of schemes to suit the developmental needs.

In most States, there are large arrears of G.M.F. loans which have not yet been recovered by the State Governments. This tendency of permitting arrears to pile up puts a heavy strain on the resources of the nation and should, therefore, be checked.

We found that in most States large sections of the subordinate staff of the Agriculture and other Development departments are comparatively low paid and kept temporary for a long time. This state of affairs cannot but lead to low efficiency. We suggest that the State Governments may examine these questions.

We suggest the setting up of grain golas in the rural areas as is being done in Orissa. The grain golas are being set up in that State on cooperative basis. The emphasis in the formation of cooperative grain gola societies is on local grain collections by way of share and deposit; Government also deposits paddy with these societies. Paddy comes into the golas in three ways: firstly, in repayment of the paddy loans, secondly, in the discharge of fertiliser loans; and, thirdly, in pursuance of the marketing operations of members through the grain gola society. Grain golas thus help the collection of marketable surplus in the rural areas and, by providing local storages to meet the local needs, facilitate marketing of the surplus to other areas.

We also recommend that in the Community Project areas special efforts may be made to make the farmer market-conscious, encourage him to sell more of his

produce in exchange for industrial goods and thereby ensure that increased production in these areas is reflected in the marketable surplus.

We would recommend the setting up of regulated markets in all parts of the country, preferably on the model of the markets of the erstwhile Hyderabad State, and would urge the State Governments to take necessary steps in the matter.

Regular studies of the pace and volume of marketable surplus in relation to fluctuations in production and prices are essential for the formulation and review of policies relating to price stabilisation. For this purpose, arrangements should be made for the collection of all relevant data including the information on market sentiment and expectations which affect the course of prices considerably. In fact, it is on the basis of a regular study of the market behaviour that the Intelligence Division, the setting up of which we have recommended, will provide the necessary guidance to the Price Stabilisation Board and Government.

The need for technical, economic, and social research can hardly be over-emphasised. In fact a number of the recommendations in this report have been for eliciting more facts and figures in areas where the available knowledge is rather inadequate. It has cropped up in our studies of demand, supply, production responses, marketings, marketed surplus and farm management, to list only a few. While a lot of work is being done at present by the Government departments, Universities and other Research Centres, we feel that a lot still remains to be done and Government should allot more funds for research to the various bodies concerned. The role of research in the development of the country cannot be over-emphasised.

Problem Of Scarcity Areas

The remedial measures for each of these areas would depend on the nature and intensity of its problem. We hope that detailed and intensive studies would be undertaken in these areas before long.

From the viewpoint of food scarcity, the districts to be included have to be such as are chronically deficit and form a compact block of territory. The two eastern-most and highly deficit Divisions of Varanasi and Gorakhpur have essentially to be a part of the eastern districts, with the exception of Mirzapur District which consists of a thinly populated plateau. Contiguous with these two Divisions are the six districts of Faizabad Division including Pratapgarh, Sultanpur, Faizabad, Barabanki, Gonda and Bahraich. These districts are also subject to the same type of difficulties as are the areas covered by Varanasi and Gorakhpur Divisions. The three Divisions form an unbroken stretch of territory with common characteristics bearing on food situation. The U.P. Census Report, 1951, also includes four out of

six districts of Faizabad Division in the scarcity area of eastern U.P. Volume II, Part I-A, of that Report says, "the whole of Gorakhpur Division, Banaras Division except Mirzapur, Faizabad Division except Gonda and Bahraich and Lucknow and Rai Bareili districts of Lucknow Division are danger spots from the point of view of rural food situation." Gonda and Bahraich which were left out, have been in a relatively better position partly because they have been receiving considerable quantities of rice and paddy from Nepal. With the imposition of a ban on exports from Nepal, these two districts may now have to face scarcity in times of floods which are quite frequent there. Considering all this, we are of the opinion that the scarcity area in the eastern districts of U.P. should include the three Divisions of Gorakhpur, Varanasi (except Mirzapur District) and Faizabad comprising the following districts :

Gorakhpur Division	... Gorakhpur, Deoria, Basti, Azamgarh.
Varanasi Division	... Varanasi, Jaunpur, Ghazipur, Ballia.
Faizabad Division	... Pratapgarh, Sultanpur, Faizabad, Gonda, Bahraich, Barabanki.

In the discussion that follows, it is the 14 districts of these three Divisions that are compendiously described as eastern districts or the eastern region.

In the eastern districts holdings below two acres account for 20 per cent of the area under all holdings; the corresponding figure for the rest of U.P. is only 11 per cent. Similarly, the proportion of area covered by holdings exceeding two acres but not exceeding five acres to the area under all holdings is about 29 per cent in 14 districts and only three per cent in the rest of U.P. On the other hand, the proportion of area covered by holdings exceeding five acres is much greater in the rest of U.P. than in the 14 districts. It is about 86 per cent in the rest of U.P. and in the 14 districts about 50 per cent. All this shows that there is greater concentration of small holdings in eastern districts. What is required is a drive for promotion of cooperative servicing and better farming societies, so as to overcome the difficulties of tiny holdings.

The decline in the number of wells seems to be partly due to their replacement by camels and tube-wells and partly to lack of repair. Wells have a part to play even in the areas receiving canal water, because the grower can draw upon well water at any moment he likes. In other areas, adequate stress on the construction of masonry wells and repair of old ones seems to be necessary to bring a larger area under irrigation. The water level in these districts being high, masonry wells provide cheap and ready means of irrigation.

The State Government constituted a Flood Control Board in 1954 for coordinating all measures relating to

control of floods. Under the First Plan, schemes estimated to cost Rs. 9.68 crores were started. Out of this amount, a sum of Rs. 5.41 crores was spent up to the end of 1956-57. Under the Second Plan schemes estimated to cost Rs. 8.29 crores were started, out of which only Rs. 48 lakhs have been spent by the end of 1956-57. This pace is obviously poor and needs to be stepped up.

We were told that the State Government is considering a proposal to give subsidy on the distribution of chemical fertilizers to these districts. That showed help in raising the yield. But because of prevailing difficulties about chemical fertilizers, provision of organic manures and green manuring are urgently called for.

In order to increase the production of foodgrains in these districts, the State Government is exploring the possibility of introducing short-term crops which can mature between the harvest of the rabi crop and the beginning of the rains.

Considering the extent of food deficit in these districts, it is clear that after everything possible has been done to augment food production, the problem of deficit will continue to remain unless steps are simultaneously taken to check the growth of population.

When U.P. as a whole is on the margin or is deficit, it does not seem safe to depend on private trade to meet the needs of the eastern districts, without incurring the risk of an undue rise in prices. In such a situation, the deficit of the eastern districts is likely to put a disproportionately large pressure on the price position in the whole State. Until, therefore, the State as a whole has a comfortable surplus, Government will have to undertake responsibility for the supply of foodgrains to this area. When, however, crops in these districts are affected by floods or drought, Government will have to undertake distribution, irrespective of whether the rest of the State is in a deficit or surplus position. At least for some years to come, the State as a whole is not likely to have a comfortable surplus while these deficit districts will continue to be exposed to floods and drought. Therefore, arrangements for Government supplies to this area on a continuing basis will be necessary.

Despite its having deficit, the region is a substantial exporter of certain foodgrains. These exports enlarge its deficit which is met by imports from the rest of U.P. or from outside U.P.

It is necessary that exports on private account from these districts should be banned.

As already stated, agriculture being the main source of income of the people, any severe damage to crops, in addition to enlarging the deficit creates the problem of low purchasing power. The problem often is not lack of flow of supplies from other areas but lack of means to buy. Opening of test relief works is only a palliative. The solution lies in correcting the unbalanced character of the economy by increasing and diversifying employment

opportunities through promotion of village and small-scale industries besides position of better irrigation facilities for agriculture and protecting the economy against flood hazards.

Conclusion

The assessment that we have made of the likely supply and of the demand for foodgrains shows that food position will continue to be difficult. It is for that reason that we have emphasised the need for price stabilisation, control over trade of foodgrains and its progressive socialisation. Our recommendations when implemented, will materially reduce the fluctuations in prices and attendant hardships caused both to the producers and the consumers.

For an effective solution of the food problem, not only determined and all out efforts to step up production have to be made but the high rate of increase of population has to be checked. We, therefore, urge that a nationwide campaign for family planning enlisting the efforts

and energies of social workers particularly women, medical men, scientists, sociologists, economists, administrators and political leaders be launched.

The gravity of the food situation demands national efforts transcending regional and party considerations. Given a sympathetic policy and helpful administration we have no doubt that our cultivators are capable of greatly accelerating production. If India can become the pace-setter in constructing major irrigation projects in the world, there is no reason to believe that her agriculturists cannot match the strides of her engineers. What is needed is a sense of urgency and mobilisation of popular energies on a national scale.

Success of food policy, in the conditions prevailing, demands understanding and cooperation from the people. Adequate and effective contact with the people and flow of information both ways are, therefore, the *sine qua non* of success. In the great experiment of economic development through political democracy that our country is engaged in, the crucial position is occupied by food policy

BANARAS HINDU UNIVERSITY ENQUIRY COMMITTEE, 1957—REPORT

Delhi, Manager of Publications, 1958. 44p.

Chairman : Dr. A.L. Mudaliar.

Members : Shri M.C. Mahajan ; Dr. P. Subbarayan ; Smt. Sucheta Kripalani ; Shri Navroji J. Wadia.

APPOINTMENT

In exercise of the powers conferred by Sub-Section (2) of Section 5 of the Banaras Hindu University Act, 1915 (Act XVI of 1915), the President, in his capacity as Visitor of the University, has directed that an enquiry be made and that a Committee of Enquiry be appointed to enquire into and report on the said matters relating to the University in July 1957.

TERMS OF REFERENCE

- (1) To examine the general state of discipline in the university, keeping in view the recent disturbances in some of the Institutions ;
- (2) To enquire into the adequacy and effectiveness of the existing rules and procedure for ensuring proper conduct and discipline amongst the employees of the University ;
- (3) To examine the working of the Act, the Statutes

and the Ordinances of the University in general and with particular reference to :

- (a) The Composition of the Authorities of the University ;
- (b) The Institution of the Principals and their *ex officio* appointment as Chief Wardens ; and
- (c) The powers of the Vice-Chancellor vis-a-vis the administrative and the teaching personnel of the University ;
- (4) To suggest such remedies and measures as are necessary in respect of matters specified in items (1) to (3) above ; and
- (5) To suggest such other measures of reform as are necessary for the betterment of the academic life and efficient functioning of the University.

CONTENTS

Report of the Banaras Hindu University Enquiry Committee ; Memoranda ; Constitution of Selection Committees and Appointment of Teachers ; Examinations and Examinerships ; Strike in the College of Technology ; Teacher-Politicians and Group Formations ; Student Welfare Problems ; Law and Order ;

Demand for Increased Admissions ; Procedure to be Adopted for Consideration ; Admission of Students ; Women's College ; College of Music ; Constitution of the University Bodies ; the Visitor ; the Court ; the Chancellor and Pro-Chancellor ; Rector of the University ; Appointment of Vice-Chancellor ; the Pro-Vice-Chancellor ; Treasurer ; the Court ; Representatives of Ex-Students ; Representatives of Parliament ; Nominated Members ; the Executive Council ; the Academic Council ; Standing Committee of the Academic Council ; Finance Committee ; Selection of Teaching Personnel ; Library ; Office Reorganisation ; Audit and Stock-taking ; Construction of Buildings ; Ministerial Staff ; Other Representations ; Other Complaints and Grievances ; Conclusion ; Epilogue ; Appendices I to 6.

RECOMMENDATIONS

Memoranda

The memoranda received by the Committee dealt with the following aspects :

(1) Reports of occurrences in the University, particularly with reference to certain incidents that took place in recent years.

(2) Complaints regarding the manner in which the University was being administered.

(3) Complaints regarding certain Principals and Professors of the University.

(4) Complaints regarding the method of recruitment of the teaching staff and appointment of examiners and the method of advertisement for such posts.

(5) Complaints regarding elections to University bodies with particular reference to the dominant role played by certain groups in the University in these matters.

(6) Complaints regarding the attitude of certain teachers in student indiscipline and the manner in which the student-body was generally utilised for purposes not conducive to the discipline and the healthy atmosphere in University life.

(7) Complaints about the lack of proper facilities or amenities to the large body of students seeking admission.

(8) Complaints about certain injustices done to individual members of the staff.

In considering all these points, the Committee was naturally led to a study of the history of events in the Banaras Hindu University over a period of years and such study revealed the fact that for some years, the position has been steadily deteriorating in regard to all aspects of University life and administration. This University was founded by the late Pandit Mahamana Madan Mohan Malaviya of revered memory with ideals which appealed to a very large number of persons and which drew large benefactions and donations from various categories of persons. It is understood that

during the life-time of the Founder, there were a few occasions when slight disturbances took place; but, on the whole, his personality and his long connection with the University helped to curb the disturbing elements and keep them in their places. Pandit Madan Mohan Malaviya was succeeded as Vice-Chancellor by Dr. S. Radhakrishnan under whose stewardship many improvements were made in the University administration and life. Yet it is disconcerting to note that he had eventually to break his connection with the University owing to certain factors that developed leading to what has been termed as the assertion of group politics in the University. The next Vice-Chancellor to be appointed was the late Dr. Amarnath Jha, who had been Vice-Chancellor of the Allahabad University and held other positions of great responsibility. It is regrettable to note that Dr. Amarnath Jha did not find it possible to continue even for a full year as Vice-Chancellor. When Dr. Amarnath Jha left the University, Pandit Govind Malaviya was appointed as Vice-Chancellor. Even Pandit Govind Malaviya, who at one time was able to satisfy the group, ultimately had to leave as the Rector had to set aside the election on complaint from his very supporters. It was at this time that the Banaras Hindu University Act was revised and the Act of 1951 came into force whereby the power of appointing the Vice-Chancellor out of a panel of names submitted by the Executive Council was vested in the Visitor. The person chosen was a well-known and much respected leader, Acharya Narendra Deva, who had been previously the Vice-Chancellor of the Lucknow University. It has been reported that, during the time of Acharya Narendra Deva, things were not running smoothly and the dominant role played by certain groups of teachers became more accentuated. The absence of the late Acharya Narendra Deva for long periods from the University owing to his other activities and to his poor health is also reported to have been a factor leading to the development of certain unfortunate trends. The conflicts increased and certain incidents are reported to have taken place then. Acharya Narendra Deva left the University before his term expired and probably one of the reasons might have been that his health did not permit him to continue. When Acharya Narendra Deva retired, the following four persons were nominated for selection by the Visitor for the post of Vice-Chancellor:

- (1) Shri R.N. Banerji,
- (2) Shri K.C. Sen,
- (3) Sir C.P. Ramaswami Aiyar,
- (4) Shri D.G. Karve.

The Visitor chose Sir C.P. Ramaswami Aiyar who assumed office on July 1, 1954. From all accounts, Sir Ramaswami Aiyar was anxious to do his very best for the University and it is well known that the cause of the University was championed by him both with the

Government of India and with the University Grants Commission of which he was for sometime a member. In spite of all his efforts to improve the conditions of the University, which owing to several factors could not possibly be rectified earlier, Sir C.P. Ramaswami Aiyar met with a very hostile reception both from the students and from certain members of the staff. An incident has been reported when certain members of the staff advised him that, after the inauguration of the Students' Union, it was not customary to give a holiday but the very persons who appeared to have advised the Vice-Chancellor, withdrew their support with the consequence that a very hostile demonstration was staged against him. It is reported that actually some of the teachers, far from controlling the situation, actually encouraged the students to continue the demonstration. The position consequent upon the squabbles and the recriminations so widely prevalent between members of the teaching staff and groups, sometimes based on political ideologies and sometimes on personal loyalties, was such that Sir C.P. Ramaswami Aiyar had to report to the Visitor his inability to continue as Vice-Chancellor. It is no doubt true that Sir C.P. Ramaswami Aiyar also stated that he had some literary work to do for which he wanted peace and quiet, and this is one of the reasons which led to his severing the connection; it must be stated however that had his influence been normal as in some other Universities, notably the Annamalai University whose Vice-Chancellorship he resigned, he would not have felt the necessity to break his connection with the Banaras Hindu University. The resignation by Sir C.P. Ramaswami Aiyar, who had taken such great interest in the work of the University, was a shock to many of the prominent citizens of Banaras and, in particular, some of them wrote expressing their anguish at the situation that had developed and asking for strong and speedy measures to be taken.

When the resignation of Sir C.P. Ramaswami Aiyar was accepted and the Vice-Chancellorship once again became vacant, according to the newly revised Act, the Executive Council suggested four names:—

- (1) Shri M.C. Bijawat,
- (2) Shri R.S. Tripathi,
- (3) Shri Gurumukh Nihal Singh,
- (4) Dr. V.S. Jha.

It is significant that one of the names proposed was that of a Principal of a College who, no doubt, had been in service for about 25 years but who, it is reported, was strongly backed by a particular group, commonly termed the "Eastern U.P. Group" by several of the witnesses who appeared before us. The appointment of Dr. V.S. Jha evidently created considerable resentment in this particular group and we were given to understand that they have not reconciled themselves to the position of "an outsider" being appointed as Vice-Chancellor of the University.

The events which have occurred since the appointment of Dr. V.S. Jha, will be enumerated later. At this stage, it would be pertinent to refer to the position of the Banaras Hindu University in Uttar Pradesh and to the relationship that exists between the University and the State Government. The Banaras Hindu University is a Central University and was based on an Act of the Central Legislature. It is expected to function as an all-India University serving the interests of students coming from all over the country and it is on this basis that the Central Government in the Ministry of Education and later the University Grants Commission have taken the full responsibility of meeting all the needs of the University. The point requires some emphasis and witnesses have, in their oral evidence, emphasised the fact that at present, the Banaras Hindu University has lost much of its all-India character. From the statements that have been furnished to us, it would appear that a recurring block grant of Rs. 55 lakhs is being paid to the University besides contributions for other specific objects and towards the building of hostels in the University. The State Government's contribution, which was Rs. two lakhs when the Centre's contribution was Rs. five lakhs at the starting of the University, is at present a recurring grant of Rs. one lakh.

The fundamentals in the constitution of the Banaras Hindu University were (1) its all-India character, and (2) its residential nature. These facts have been emphasised in one of the memoranda submitted to us in the following terms:

"Two important objects which must be vigilantly kept in mind as far as the Banaras Hindu University is concerned are the preservation of its much valued all-India character and its residential nature... It must guard against the danger of in-breeding in its selections of teachers and continue to attract students and teachers from all over India."

The other aspect that it should be a residential University has also been stressed in this memorandum:

"There are few residential Universities and Banaras Hindu University is one of them. In recent years a large number of students in the Faculty of Arts secure their degrees without in any way benefitting from the corporate life of a residential University. So far as the majority of students in the Faculty of Arts is concerned, they are neither fish nor fowl nor good red herring. A large number of them are private candidates or students from the various affiliated colleges. A time has come when the question of permitting private candidates to appear at the examinations of a residential University should be re-examined. Getting degrees by merely passing examinations is not genuine education, no doubt this enables the University to produce a large number of Arts graduates who have never known the incalculable advantage of the contact between mind and mind,

between fellow students and students and teachers; that is the most valued factor of proper University education and not merely passing examinations. Let other Universities care for more numbers, let Banaras Hindu University cater for quality."

This aspect of the question will be referred to later. It is no doubt true that in certain of the Technological Departments, this aim has been kept in view. It cannot be said that in several of the Departments, it is functioning as an all-India University. Of greater significance is the fact that this University has come to be looked upon by the student community of Uttar Pradesh in particular and parts of Bihar as a University to which admission should be guaranteed for all students who wish to join the University. The result has been that at the time of admission, a great deal of pressure is exercised on the University authorities to increase the number of admissions, *to admit candidates who may not come up to* the standards prescribed, and in other words to utilise the occasion for a demonstration of a more or less serious nature, which has contributed not a little to the deterioration of student discipline and academic standards throughout the year. Evidence has been forthcoming that in this attempt to force the authorities to yield to the pressure tactics of certain groups, considerable sympathy, if not support, has been given by some of the Principals and Professors of the University. We are given to understand that on the last occasion, at the beginning of the academic year 1957-58, when things reached a climax and a particular person took to what is a common form of demonstration even to-day, a hunger strike, wild demonstrations took place in the University campus and groups of students went about crying 'Principal-Zindabad' 'Vice-Chancellor—University Officers—Murdabad'. The incident has been graphically described in a memorandum submitted to us in the following words:

"In the last week of July 1957, a very senior student of the Banaras Hindu University commenced a hunger strike in order to obtain concession for admission in some faculties of the University for those students who could not be selected on their merits and fell short of the minimum qualifications prescribed by the Standing Committee of the Academic Council. In the beginning of the strike period, the general body of the students who got admitted to the various faculties on their merit showed very little sympathy for the hunger striker. The heat in the movement came when a few agitators from outside, once students of this University, were imported and who shouted many indecent slogans."

The incident took place on the night of August 1, 1957, and

'If one were to analyse, he will find that apart from Ayurvedic College students, generally the students from 'Arts College', 'Law College' and the 'College of Indo-

logy' take prominent part in such movements.' In fact, a representative of the Students' Association and the person who undertook the fast told the Committee that there should be no restriction as to the number of students to be admitted, that there should be no qualifications prescribed for admissions, and that whether a student had a third-class qualification or had qualified at more than one attempt, admissions should be guaranteed.

Standards Of Admission

In one respect, this impression is due to the University itself having prescribed certain lower standards which cannot altogether be justified and which fortunately do not prevail in many other Universities. Special exemption is given to students who are prominent in the field of sports. This, it would appear to the Committee might be a justifiable position to take. But another kind of exemption is that given to the children of the teaching staff and other employees of the University to whom a lower standard is applicable for admission into the University. We can find no justification whatsoever for such exemptions being given, and if the Principals themselves or the Professors want their children to be admitted on a lower qualification, obviously they cannot be parties to maintaining any standards in regard to admission of students.

Another trend in which the responsibilities of the University have increased is the affiliation of a number of Colleges situated outside the residential area of the University on the ground that the Act provides that the "University may found and maintain other Colleges than the Central Hindu College and institutions including High Schools within a radius of 15 miles from the main temple of the University for the purpose of carrying out instruction and research." This has resulted in a number of Colleges being admitted to the privileges of the Banaras Hindu University but with little or no possibility of effective supervision of such Colleges in view of their distance from the Centre. Moreover, it has been pointed out by the representatives of these Colleges: "We are often sandwiched between two arguments. The State Government sometimes tells us that we are governed by the Central University and should look to the Centre for aid, but the Central Government says that we are a State responsibility."

There is another aspect of the development of the Banaras Hindu University which has to be taken into consideration. Limited as the numbers were at one stage, most of the students were resident within the campus of the University. But as numbers increased, the present number being somewhere near 10,000, students had necessarily to seek accommodation anywhere in the city of Banaras, although a few lodgings are supposed to have been accepted by the University

as approved lodges. The result has, therefore, been that there has been a great deal of pressure for admission into the hostels of the University. The hostels have been overcrowded, the conditions of residence have been far from satisfactory and the bulk of the students have had to face considerable difficulty in securing admission outside the University. Being a Central University, it would almost appear as if the State Government or the Local Board authority constituted by the State Government have not felt it their responsibility to do anything to alleviate the state of affairs existing at present in the University campus. It has been pointed out that even the Local Board which is responsible for the area where the University is situated has done little or nothing for any kind of amenity that is required for the residents within the University, while such taxes as are levied on the residential quarters and hostels are being collected by this local authority. The University campus presents a unique instance of a place where the commonest amenities are not available—water supply, drainage, electric supply in some parts, proper roads, etc. Within the last two years on representations made by the University authorities, steps are being taken by the University Grants Commission to provide funds for improvements for these various purposes.

It would, however, be necessary to consider whether the Banaras Hindu University should be utilised to admit students at the undergraduate level to the extent to which they are being admitted at present, thus relieving the State Government of its responsibility to provide undergraduate instruction to its own students. The information before us goes to prove that the bulk of these undergraduate students for the first degree are students from what are known as the eastern districts of Uttar Pradesh. A few would appear to come from Bihar also. While we sympathise with the needs of the students in these regions for higher education, we do feel that other methods must be explored for giving them the proper type of education that is needed, whether it be within the city of Banaras or in the districts from which they come. It is understood that many students from the eastern Uttar Pradesh districts are not in a position to maintain themselves in Banaras and this adds to the seriousness of the situation created when such students are not in a position to pay their fees or their boarding charges. The result has been a great deal of pressure on the University to raise funds for helping students, and not infrequently such students are used as tools for creating situations embarrassing to the University and sufficiently serious to cause grave indiscipline. We shall refer to some of these aspects later and suggest some methods by which alleviation may be brought about. We do sympathise with the students and feel that to bring students to a large city like Banaras is

neither safe nor desirable. In fact, some of the members who appeared before us went so far as to say that it was unfortunate that the Banaras Hindu University itself should have its campus so near a great city like Banaras with its ever changing population consequent on the large number of pilgrims and others visiting the city. Certain incidental factors lend themselves easily to produce disharmony in the atmosphere of an institution devoted solely to learning.

In referring to the increased admission of students, more particularly in recent years, our attention has been drawn to the fact that certain Principals feel that they need not observe any restrictions, even though such restrictions might have been suggested in the admission of students. In the case of one Principal, it was stated that while the number of students to be admitted was limited, he had actually admitted almost double the number of students in the college and once such admissions had been made, it was represented to us by some of the students' organisations that what had been done in one year should be continued in subsequent years. The bulk of evidence placed before us would appear to indicate that the main cause of trouble among students is due to several factors. Firstly, there are a number of students in the University who have been students for many, many years. In fact, the student-leader who went on a hunger strike in July last year has been a student for over 15 years, and at present is stated to be a student of the LL.M. class. These so-called students, who are of the mature age of 35 and over, dominate the whole atmosphere and get a group of indisciplined students to coerce other young students or subjugate them to their wishes. We have been informed that the bulk of the students are not inclined to be so indisciplined and we welcome and accept this statement; but the ring leaders create a situation where they are easily trapped to commit acts of indiscipline. It is unfortunate that the Presidents of Students' Organisations should be persons who are so mature in their age that they can hardly be identified as students of a University.

In the field of sports, it is generally laid down that a student cannot represent his University for more than five years and this has had a wholesome effect upon encouraging sports among the student population. Likewise, it is a matter for serious consideration whether anyone who continues as a student for a long period should be given the opportunity of holding positions of a dominant influence in University Unions for more than a certain period of years. This is a suggestion which may well be considered not only for this University but for other Universities as well.

Secondly, we have had very clear indication that indiscipline prevails among students because of indiscipline among teachers as well. There can be no doubt whatsoever that several of the acts of indiscipline among

students have been due directly or indirectly to the manner in which certain teachers have playcd the role in regard to activities of the student population. We have some names mentioned of such teachers holding very responsible positions and we note with a great deal of regret that the present state of indiscipline in the University is due as much to some of the teachers in the University as to the students thereof.

Thirdly, it has been represented to us that the concentration of power in an increasing measure in recent years among certain members of the staff of the University, notably among certain of the Principals, has led to a position where they hold on the student population and on the teaching staff of their Colleges has increased with possibilities of using that power in a manner not always in the interests of the University. It is unfortunate that within the last three or four years, Principals of Colleges have also been made the Chief Wardens by an executive order of the Vice-Chancellor, and for the increased responsibility of Chief Wardenship, they have been given rent-free quarters with exemption from water-tax and electricity consumption to a certain limit. It has been calculated by some that these may amount to a sum of about Rs. 200 per month. Many of the witnesses took strong exception to this extra burden being placed on Principals of Colleges and stated that it was hardly likely that they would be in a position to deliver the goods as Chief Wardens in view of their other commitments, their administrative duties and their load of teaching. It has been freely commented that this has resulted in making the Principals all powerful, leading to excessive concentration of power and neglect of proper duties. We shall refer to this aspect and to the position of Principals later, but we should at this stage point out that it should not be left to the executive action of the Vice-Chancellor to make such appointments involving also financial liability without the proper approval of the University authorities.

Constitution Of Selection Committees And Appointment Of Teachers

From several of the memoranda presented to us and in the oral evidence tendered by several persons of standing, attention was drawn to the manner in which posts in the departments of teaching are filled. It was stated that the advertisements were generally prepared by the Principals of Colleges who were expected to consult the heads of the departments concerned. In some cases at any rate, such advertisements were very defective or were so framed as to suit particular types of persons only. Even in regard to the appointment to the Selection Committee of experts, the system is far from satisfactory and has led to many errors in the proper selection of the teaching personnel. We were given to understand that not infrequently, in the Executive Council, names

were suggested and passed by a majority although some people expressed strong opinions about the suitability of such experts. We would have been inclined to think that this might have been due to an honest difference of opinion; but, in the light of the instances placed at our disposal, we regret we have to come to the conclusion that the selection of teachers is not made on merit and in the best interests of the University but that efforts are made to force the choice and to have a better hold over the teachers so recruited. In one of the memoranda presented to us, it is stated that certain groups have a dominating voice in the appointment of Selection Committees or in other ways, and thereby they influence the whole system of recruitment of the teaching staff. A statement has been furnished containing a list of members who are on the Executive Council or on the staff or other employees, all drawn from one area, and it has been asserted that many of them are related. A statement of the list of members of the staff who are so related and who form a very important group in University politics is given below.

List Of Members Of The Staff Who Are Stated To Be Inter-related

1. Pt. Ram Vyas Pande, Banaras and Balia: Editor, Panchang 1927, unpaid Lecturer and Editor, Panchang 1930, salaried Lecturer 1933, Head of Dept. of Jyotishi 1947, Member, Univ. Council 1946-47, Member of the Senate since 1948.

2. Pt. Ramshanker Pande, Banaras and Balia: Elder son of No. 1, Member, Univ. Court from Rcgd. Graduates Constituency since 1951, Member, Executive Council from Court after the introduction of new Act.

3. Pt. Umashanker Pande, Banaras and Balia: Second son of No. 1, teacher in C. H. School, under B. H. U.

4. Pt. Ambika Pd. Upadhyaya, Banaras and Balia: Retired Head of the Department of Vyakaran, Member of University Court, Faculty and father-in-law of son of No. 1.

5. Pt. Daya Sankar Pande, Banaras and Balia: Nephew of No. 1 and son-in-law of Pt. K. D. Tewari, No. 7 and House Surgeon, S. S. Hospital, B. H. U.

6. Pt. Sabhapati Upadhyaya, Banaras and Balia: Uncle of No. 4, member of the University Court, Board of Examiners and Faculty.

7. Dr. K. D. Tewari: Related to No. 1 through No. 5, Member, Univ. Court and Executive Council for the last many years.

8. Dr. R. S. Ojha, Banaras and Arrah: Son-in-law of No. 7, Reader in English, B. H. U.

9. Dr. R. Misra, Banaras and Jaunpur: Mrs. Misra and wife of No. 7, real sisters, Head of the Department of Botany, B. H. U.; and Member, Univ. Executive Council and Court before he joined University Service.

10. Shri K. C. Misra: Lecturer in Botany, B. H. U. and younger brother of No. 9.

11. Dr. C. S. Misra: Civil Surgeon, Kanpur, elder brother of No. 9, Member, Univ. Court.

12. Shri B. D. Tewari, Banaras and Balia: Lecturer, Dept. of Geology, Son-in-law of No. 4.

13. Shri B. K. Tewari, Banaras and Balia: Lecturer, Dept. of Physics, son-in-law of No. 4.

14. Pt. Dhaneshwar Pande, Banaras and Balia: Head of Dept. of Hindi, B. H. U. and near relation of Nos. 1 and 4.

15. Dr. Hajari Pd. Dwivedi, Banaras and Balia: Head of the Department of Hindi, B. H. U. and near relation of Nos. 1 and 4.

16. Justice Balram Upadhyaya, Banaras and Allahabad: Judge, Allahabad High Court, Member, Univ. Court.

17. Pt. S. R. Tripathi: Lecturer, College of Indology, daughter married to son of No. 16.

18. Shri Chandra Pande: Near relation of Nos. 1 and 4.

19. Pt. Satya Narayan Pande: Part time in Jyotishi, B. H. U.

20. Pt. Raj Narayan Pande, Banaras: Father-in-law of daughter of No. 11.

We were not inclined to take this statement seriously but, on further examination and from other independent sources, as well as from some of those whose names have been mentioned, we came to the conclusion that there was no reason for us to doubt the veracity of the facts contained therein.

Another significant fact, and a factor which has disturbed us very much, is that looking into the record of several of the teachers, we find that somehow or other, they are generally those who have risen from the lowest positions in the University. They have been selected as demonstrators or tutors and gradually have worked their way up. We would not have thought that this was necessarily a matter for some anxiety but for the fact that, in the actual selection of such persons, there seems to have been an attempt to exclude people who might have been equally competent or more competent from either appearing for interview or from succeeding after appearance. This has produced an unfortunate tendency for in-breeding which in a University of an all-India character would be rather detrimental to its best interests. More particularly in recent years, we have been given to understand that an atmosphere has been created in which only particular types of persons from certain geographical areas have any chance to be appointed as teachers when vacancies occur. In this connection, it has been brought to our notice that in one case, a member of the Selection Committee was himself selected to the post though he was not an applicant. In another case, a post was created and, without

any advertisement, the person was appointed the next day. We are very much concerned with these trends and feel that this is an important aspect of the question that should be rectified as early as possible. We shall refer to what we feel should be significant changes in regard to the method of appointing Selection Committees later.

Examinations And Examinerships

In a residential University, there is no doubt a possibility that the bulk of the examiners are from the staff of that University; but, unfortunately, in the particular circumstances under which the students have to study, it has become necessary for us to examine the system of appointment of examiners more closely. Whether it be in the examinations at the higher level which involve the conferment of doctorates or in the other examinations, it has been represented to us that it is not so much the performance of the student as the part he plays in propitiating some of the powerful members of the groups that ensures his success and not infrequently his rank in the University. In the choice of examiners also, it would appear again that group politics play their part, and often examiners are appointed who would be more inclined to support the internal examiner than to express their own independent opinion. It has also been represented to us that in the all-India conferences held on various subjects, where teachers are sent as delegates, much of lobbying takes place in regard to examinerships and suitable names are thereafter suggested from the Universities concerned so that on a mutual benefit process, examiners may be appointed by the different Universities. We realise that examiners are not averse to make complaints in any University but from certain other incidental factors, we are inclined to believe that the evil exists to a large extent in this University. We have been told and we have no reason to disbelieve this information that in certain of the professional examinations, the students are practically at the mercy of their teachers so far as success in the examination is concerned. It is also extraordinary that Professors should wish that their relations should work under them for research qualifications. Under ideal circumstances, this should not lead to much comment but under the circumstances obtaining in the University when things are manipulated, it obviously leads to criticism and comment when a close relation of a Professor, such as son or daughter, is taken as a research student and he or she is guided through research. An instance has been brought to our notice where a thesis was presented in three volumes on a subject which required a great deal of study and experimentation. The examiners themselves were bewildered and one of them is reported to have said that it was a marvel that such a thesis could be presented by a student working for a degree and within

a short period. In this case, it has been suggested that this student, who is related to a Principal, submitted a thesis the bulk of which was done by members of the department. One of the Professors has made a serious charge that his daughter was not allowed to work under him for a research degree. The Academic Council would appear to have suggested that she might work under some other Professor. We would ordinarily have thought that instead of taking it as a criticism, the Professor himself would have voluntarily suggested that the daughter might work with another Professor on a subject mutually to be agreed upon. To resent this and to make an attack on the authorities for their decision shows how little the Professor realises his responsibility in the matter.

Strike In The College Of Technology

Early in 1957, there was a strike in the College of Technology which led to some confusion. The following students of the College were detained for shortage of attendance, viz., N.C. Sachiti, M. Venket Ratna, B.K. Lal and A. Setu Ramya. On account of their detention, the students of the third year class of the College boycotted the examinations on March 23, 1957. They accused the authorities for not taking regular attendance and also for improper maintenance of registers, etc. We enquired into this question carefully. The students were afraid of victimisation because, at the time of the examination, the persons responsible held a dominant position in assessing their results. When the Principal was interviewed, he was specifically asked how he came to the conclusion that the attendance register was not maintained; he admitted that the attendance was not taken for some months, probably four months, but stated that as the number of students was limited, say 30, he counted the heads and noted those students who were absent. No register was shown to us containing these details; and we cannot but express our surprise that the Principal should have dealt with students in this manner and refused to certify he had not taken the attendance.

A curious and somewhat comical incident in regard to this taking of attendance happened which was a revelation to the Committee. The students who had been detained represented to the Committee their fears of victimisation. Another batch of students appeared before the Committee. They stated that they were students of the same College of Technology and volunteered the information that the attendance was regularly taken, that the Principal insisted upon attendance and that at no time was it a fact that the attendance register did not indicate who was present and who was absent. When confronted with the statement of the Principal himself as transcribed from the short-hand record of his evidence admitting that attendance was not taken for four months, the students were confused beyond measure,

a significant fact which reveals how evidence should have been manipulated

We have noted that the students of the University have some genuine grievances which we feel ought to be remedied. It is not necessary for us to go into further details to bring home the real cause underlying the indiscipline among students. In fact, the enquiry has revealed in no uncertain terms that the greatest menace to the proper functioning of the University is not the student population but the teacher-politicians and the groups, particularly the dominant section of what is known as the Eastern U.P. group.

Teacher-Politicians And Group Formations

We have had irrefutable evidence from diverse sources, including many members of the academic staff, that the real menace to the satisfactory working of the University lies in the teacher-politicians and the formation of groups which dominate in all affairs of the University. This allegation has been fiercely contested by some who have themselves been styled as leaders of such groups. Recently, the Chairman of the University Grants Commission visited the University and after a thorough study of the present conditions prevalent there referred to the part played by teacher-politicians to the ruin of the University. The Teachers' Association sent a letter to him asking to withdraw these remarks. Incidentally, it may be mentioned that the so-called Teachers' Association itself seems to be dominated by a group and several teachers stated that they had not joined such an association and questioned the very methods adopted to form such an association. We may also here refer to the memorandum presented by this Association, wherein the President's decision to appoint the Enquiry Committee is questioned and criticised. Reference is made to this group in several of the memoranda submitted and even more unequivocally by the witnesses who tendered evidence before us, which we feel we cannot afford to ignore either as regards the existence or the role played by this group. It has been stated that "the voice of the Eastern U.P. group dominates the University Court and affairs" and that "the crux of the problem lies in the fact that people belonging to the Eastern U.P. districts try to capture all positions of vantage in the University, both academic and administrative." In another memorandum submitted by a senior Professor, it has been stated that "peoples of East U.P. and Bihar were responsible for the strike. The fact is that a group of local people from among the staff of the Banaras Hindu University from the eastern Districts of Balia, Gorakhpur, Jaunpur, Deoria, etc. and local citizens have joined together to wrest power and the reigns of the University ever since the time of the founder Vice-Chancellor Pandit Madan Mohan Malaviya, in ousting Dr. Radhakrishnan and Dr. Amarnath Jha in quick succession and again it is they who fought against

Pandit Govind Malaviya, Acharya Narendra Deva, Sir C.P. Ramaswami Aiyar and now against the present Vice-Chancellor. They dominate the University politics, the B.H.U. Teachers' Association, the University Old Boys' Association, the Banaras Hindu University Union and the University Court which in turn sends four or five members to the Executive Council and who gather round them some of the Principals of Colleges and thus acquire a very dominant voice in the Executive Council, making it impossible for the Vice-Chancellor to effect any changes or reforms and forcing the Vice-Chancellor to play to their tune. This brings us to the question of discipline among the staff and employees which is of much greater importance than discipline among students on account of their general influence on the general behaviour and party alignments of the students. Students are floating population but staff is permanent, and it is the staff that seems advantageous often using the students as their tools." We have quoted rather extensively from this memorandum because our enquiries and our close investigations lend support to these observations. Lastly, let us quote from the memorandum presented by the Commissioner of the Banaras Division. "It must, however, be admitted," states the memorandum, "that these agitations are not only those which emanate from the students themselves. The seeds of these agitations are to some considerable extent sown by certain teachers of the University who seem to have been acting for the last six to seven years with the clear intention of bringing the University into disrepute by creating situations and circumstances so as to belittle and embarrass the University authorities, particularly the authority of the Vice-Chancellor. As such, whenever it is felt by this group of teachers that there is a certain amount of unrest amongst the students, they act as agent-provocateurs."

Student Welfare Problems

So far as the welfare problem of the students is concerned, the Committee has been impressed by the fact that conditions in the University, owing to the large and increasing numbers admitted year after year, have deteriorated. We have been told and we have verified for ourselves the fact, that there is not enough accommodation for all the students in the class-rooms. Nor is there sufficient space in the laboratories for the increased numbers admitted. The hostels are overcrowded and unfortunately students, who are not hostell-mates, are also accommodated there either openly or in other ways. This overcrowding has become so chronic that the teachers are unable to control the classes. A large number of students are forced to live outside the campus of the University in surroundings that are appalling. Reference will be made to this serious problem when we discuss the question of law and order in the University. It is understood that no attention has been paid to such

extra-curricular activities as have a great bearing upon student-welfare. As one of our Commissioners has reported, although the campus is so big and there are large pieces of ground for various games to be played, the playgrounds presented a deserted appearance. Obviously the students have never felt the urge to play. It is unfortunate that even a physical director is not available and no one is interested in promoting sporting activities and games among the students. The canteen arrangements for the students are far from satisfactory. When the bulk of the students are coming from outside and the city is far off, it should be the responsibility of the University to make suitable arrangements for day scholars to have at a convenient place a canteen where proper and nutritious food will be available at minimum cost. The students have also complained that facilities for library study are remote. We shall refer to the Library at a later stage but we must confess that the idea of a centralised library, without proper facilities for Colleges to have a library of their own for undergraduates, lends much support to the criticism of students that books are not available and that poor students have not the opportunity to have recourse to the library.

The state of sanitation is deplorable. No attempt has been made to provide the necessary sanitary conveniences of modern nature even in the hostels whether it be for men students or women students; and, in the Colleges themselves, the arrangements are to say the least very primitive indeed.

It has been reported already that the electrification programme has been considerably delayed owing to lack of power supply. There are many places where electricity has not been made available. The provision of a few fans in the class-rooms when the work is to be conducted in the hottest part of the year might be looked into as one of the necessary amenities.

In a residential University of this nature, many activities could have been fostered. Many competitive forms of physical activities and games, and competitions in the literary field could have been organised by dividing the resident population into what is known as Houses, as is done in such residential places. We regret to say that the supervision of the students is extremely inadequate and the whole system of wardens, and particularly Chief Wardens, has been a fiasco. We consider that the legitimate grievances of the students in this respect should be attended to immediately, that more residential accommodation should be available and that the University should be, as its name implies, a residential University taking such numbers as can be accommodated in a residential University. The limitation of numbers is for the particular purpose of giving to everybody who joins, the benefit of a residential system and thus fostering the growth of healthy citizens who will be

a credit to the country. At present, this ideal is far from being reached.

Law And Order

The position with regard to law and order in the University seems to be chaotic. University students are allowed to live in various places outside the campus under surroundings that can only be described as most unfortunate. As the Commissioner of the Banaras Division has stated in his memorandum, in such a campus it would appear as if nobody can control students. It is a healthy convention in most Universities that the University campus itself should be free from any visits by officers responsible for the maintenance of law and order in the District or Town, and it is for this reason that a system of Chief Proctors and Proctors has been devised, who should be in a position to control the students and save them from falling into unfortunate ways. The Commission states: "The students have always been rude whenever a police officer has visited the University in connection with the investigation of crimes or any allied matter. On account of this, the authority of the police in regard to maintenance of law and order in the University campus has dwindled day by day and a sort of tradition has grown up that the police is responsible for the law and order duties only upto the University gates. The Chiecf Proctor who happens to be invested with Magisterial powers of second class does not perform any function of a Second Class Magistrate to deal with the problem of law and order in the University. This fact coupled with the fact that lawlessness and indiscipline in the University is actively guided by political parties and certain teachers of the University, has, so to say, made University campus out of bounds for the process of law. It may be added, however, that the tendency of the University authorities has so far unfortunately been to solve matters by acceding to a great extent to the demands of the students. Although in the circumstances, it cannot be said that any other solution could have been better, yet it can be said that action has never been taken to eradicate indiscipline from among the students owing to adoption of the temporary expediency of avoiding a showdown. The students have quite often sent bogus telegrams to high personalities and have also been found congregating before girls' schools in the city and brow-beating traffic constables or ridiculing a police officer."

We do hold that the University which is a temple of learning should be in a position to manage its own affairs, to control any acts of indiscipline among students by invoking healthy traditions among students themselves and by creating public opinion among the student population, which is the best preventive for acts of indiscipline. But such state of affairs cannot possibly be prevented if active cooperation from the teaching

element is not available. From the statements quoted elsewhere, it would be obvious that if certain of the teacher-politicians themselves are agent-provocateurs as mentioned by the Commissioner of the Division and are inclined to take every opportunity to create more of indiscipline, a stage is often reached when such indiscipline becomes a matter of grave concern to the University authorities.

One aspect of life in the University which has been revealed by the Divisional Commissioner is far more surprising than any of the acts of indiscipline. He has referred in his memorandum to students visiting houses and lodges of disrepute and to certain students being associated with these. He has also mentioned about certain teachers committing offences involving moral turpitude. It was painful reading for the Committee to go through these unvarnished facts and the members do not see any reason to discount the statement made, for, in the evidence tendered by more than one person, charges and imputations of immorality in the University have been made and a case of unnatural offence involving a Professor is stated to be before a court of law.

Mention of the court of law brings to our notice the manner in which the University has been often dragged into a court in matters which should hardly have been taken to a court of law. We feel that in matters academic, it would certainly be embarrassing for a University to be dragged into a court of law on every conceivable occasion by teachers, students and politicians. We give below a list of various disputes pending or which have been recently disposed of in Courts of Justice wherein the University had to be a party.

List Of Disputes Pending Or Disposed Of In Courts Of Justice With University As A Party

1. Dr. Akshaibar Lal, Reader, College of Agriculture.
2. Dr. Raj Bali Pandey, Principal, College of Indology.
3. Dr. S.S. Joshi, Principal, College of Science and Dr. P.N. Bhargava, Reader in Organic Chemistry.
4. Indian Wheat Loan Educational Exchange Programme—Scheme in the Botany Department.
5. Sale of old newspapers and magazines in the B.H.U. Library.
6. Dr. Virendranath, Lecturer in Pharmacology, College of Ayurveda, B.H.U.
7. College of Mining and Metallurgy—Appointment of Readers.
8. Indiscipline in the College of Technology.
9. Re. two posts of Lecturers in Hindi.
10. Re. Pt. Ram Vyas Pandeya, Jyotishi, Sanskrit College, B.H.U.
11. Re. Dr. R.S. Ojha, Reader in English, Central Hindu College.

12. Re. Shri Gancsh Prasad Singh, Lecturer, Teachers' Training College, B.H.U.
13. Re. Pt. Dhanshwar Pande, Compounder, S.S. Hospital, B.H.U.
14. Re. Dr. B.L. Atreya, Head of the Department of Philosophy.
15. Re. Shri D.S. Pande, Temporary Medical Officer, S.S. Hospital, B.H.U.
16. Re. Shri Uma Shanker Pandey, Art Teacher, Central Hindu School, Banaras.
17. Re. Pt. K.D. Tewari, Member, B.H.U. Court, Executive Council and Finance Committee.
18. Re. Pt. Kedar Dutt Joshi, Adhyapak in Jyotish, Sanskrit College.
19. Re. Dr. Gopal Tripathi, Principal, College of Technology, B.H.U.
20. Re. Dr. Ramlochan Singh, Head of the Department of Geography, B.H.U.
21. Re. Pt. Ambika Prasad Upadhyaya, Adhyapak in Vyakarna, Sanskrit College, B.H.U.
22. Re. Dr. S.S. Joshi, Principal, College of Science, B.H.U.
23. Re. Appointment of Treasurer.

It has been brought to our notice that in the case of the strike in the College of Technology, the conduct of the Principal was subject to review in the Executive Council, and a retired Chief Justice, was appointed to look into this case on a resolution passed by the Executive Council by a majority vote. From evidence tendered before us by very responsible people, it would appear that one Principal and another, a Registrar of another University who is a member of the Executive Council, who participated in the discussion and did not agree with the suggestion of the Vice-Chancellor, used threatening terms to very respectable members of the Executive Council and who participated in the discussion and voted with the majority, should have appeared for the Principal of the College in the judicial appeal that was preferred by the Principal against the University. We realise that it is open for any Advocate to plead in a court of law in a case on behalf of his client irrespective of his own attitude in the matter, but it does seem incomprehensible that a person holding the position of the Advocate-General and a member of the Executive Council should have gone out of the way to support a case professionally against the University.

We have carefully considered the several memoranda submitted to us by persons who are in the service of the University in one capacity or another, by those connected with one or other of the University authorities, by ex-Vice-Chancellors, by members of the public who have taken a keen interest in the affairs of the University and by the Association of Teachers, students and class IV employees of the University. Several of them have

suggested a number of remedies so that the University may function as an all-India University and maintain a proper academic atmosphere and standard of conduct and rectitude. We have also interviewed several of these persons and others and had a free and frank talk with them to elucidate their views about the present state of the University, the reasons for deterioration, if any, in the standards academic, administrative or otherwise, and we have taken note of the remedies suggested by several of them. While we maintain that there was nothing wrong with the University, that the state of affairs was not different from what prevailed in other Universities in the neighbourhood, the majority of those who could speak with a certain sense of responsibility were, however, of the view that matters had come to such a pitch that radical measures should be immediately undertaken.

It has been brought to our notice that one of the Professors utilised the students' concession fare on railway to take a marriage party and when this was brought to the notice of the authorities, the Professor was let off with a warning. Later, we understand this Professor was the recipient of a Presidential award. Such an incident cannot but be demoralising to the University. This incident found a place in the report of the Railway Inquiry Committee.

The irresistible conclusion that has been forced on us from the evidence placed before us is that the University is in an unfortunately bad predicament. It is not functioning as it should or as it was intended by its eminent founder. It has lost its all-India character and is not at present a residential University by any stretch of imagination. We regret to have to state that from all the material placed at our disposal, we cannot help feeling that it has become a hot-bed of intrigue, nepotism, corruption and even of crimes of various description. It would appear that the ordinary law of the land is not in force within the campus, nor are the authorities of the University, who are entrusted with the maintenance of law and order within the campus, in a position to enforce these under well-known conventions.

It is a sad reflection that the University campus which has been well laid out with extensive playfields has not been put to any proper use at all, and no healthy physical activities are undertaken by the students in the evenings. In fact, the campus gives an appearance of Goldsmith's "deserted village", and no students can be found in the playfields in the evening or taking to healthy recreation in the University premises. Many of the common amenities required for students do not exist. There are no common-rooms or assembly halls. The University does not possess, after so many years of its existence, a trained Physical Director for organising sports and games. Little attention seems to have been paid to provide proper amenities for students to keep them busy and away from unhealthy surroundings in and around the campus. It

would appear that little or no attempt has been made to harness young men's activities outside the lecture-rooms into healthy channels and to prevent them from falling into the hands of demagogue politicians of all shades.

The University is supposed to have wardens in charge of the students residing in the different hostels, but we have had on the authority of the Provost that the majority of these wardens have not been able to discharge their duties conscientiously and that probably half a dozen or so are trying to do their best under the difficult circumstances existing in the University. The innovation of having the Principals of Colleges as Chief Wardens has made the situation worse. There has been a feeling of resentment that the Principals should have been entrusted with the duties of Chief Wardens in addition to the multifarious duties that they have to perform in the Colleges as Principals and members of various University authorities and in attending many meetings, conferences and functions. The result is that the hostels are used by a few persons who have no right to be there and some of them have been living for several years, refusing to leave the hostels. It is even more surprising that one of the Professors on retirement refused to vacate the quarter occupied by him and continued to live there at his leisure paying only half the amount of rent that he was paying when in office. Eventually he carried this matter even to a law court. This lack of any control has given room for a number of persons entering the premises of the University, and various leaders of political parties have not hesitated to maintain their offices within the campus. We are informed that their activities are carried on through the agencies in the different hostels and with the co-operation of some of the members of the teaching staff. We have been told by a responsible officer of the Government of India that some offences are committed within and outside the campus involving moral turpitude.

The institution of 'Principals of Colleges' has been subjected to severe criticism at the hands of many of the witnesses. It has been stated that the Principals act in a very autocratic manner with few exceptions and that the other members of the staff and the students have to toe their line if they are to have a peaceful existence. Too much power is concentrated in their hands, much to the detriment of sound academic efficiency, and it has been reported that the Principals have their way of distributing patronage among the staff and act in a most undemocratic manner. We must confess that it has been due to the weak policy followed by some of the Vice-Chancellors who, to propitiate certain dominant persons, have given them more and more power with less and less justification. The head of the Department is not given the status that he ought to have. Moreover, when advertisements have to be inserted in the press or selection of proper personnel is to be made, it is the Principal who has got the chief voice in the matter. There are no

staff committees which are expected to meet occasionally and discuss academic and administrative problems of the department. And so far as students are concerned, they are made to feel that their future is entirely in the hands of some of these Principals. Reference has been made to the state of affairs in the College of Technology where the Principal, without taking attendance for four months, exercised his authority in withholding certificates for four students to appear for the examination. Although eventually this order was annulled, it is still a matter which is under investigation. But the main point of emphasis here is that the students naturally feel that they will not get fair play with some persons or group of persons who will be responsible for the conduct of the examination. This has introduced an amount of demoralisation among students which it is unnecessary to describe at length.

Demand For Increased Admissions

We must express our surprise that the situation does not seem to have been as well appreciated by the State Government as one would have expected. Where demands are made for increased admissions in the different States, it is the responsibility of the State Government to see that such demands are satisfied. We gather that in the eastern U.P. districts, there are a few colleges to cater to the needs of the large number of students seeking admission and the idea, that the Banaras Hindu University being a Central University should be open to all, is a very erroneous idea, and is not justified either according to the terms under which the University was constituted or from the point of view of the ideals with which it was founded. We are also of opinion that the time has come when the Banaras Hindu University should be purely a residential University limiting its numbers to the extent to which it is possible so that all students may be resident and that the colleges affiliated to the University should be hereafter affiliated to the Gorakhpur University except for the Kamachchha College which was the old Hindu College and should therefore continue as a Constituent College of the Banaras Hindu University. We shall refer to the financial aspect of this question later.

It has been represented to us that the indiscipline in the University is not a little due to the traditions that were established in the freedom struggle and that those traditions have created an atmosphere which naturally tends to give an impetus to act in this manner. We are unable to appreciate this argument which has been put forward even by some of the members of the teaching staff. The present generation of students cannot be said to have done anything to claim their participation in the freedom struggle of 1942. Moreover, it is not only the Banaras Hindu University students but the alumni of all Indian Universities who

naturally on account of their youthful enthusiasm and selfless conduct, contributed to the struggle. To put forward this as an argument for the state of thorough indiscipline in the University is to fail to understand the essentials of proper conduct and rectitude.

We have been told that, while in the earlier days of the University even undergraduate and Intermediate classes were given the benefit of the lectures from professors, today the position is that most of those who occupy posts of Professors do not think it worthwhile or consider it even infra dig to teach such classics. We have also been impressed with the fact that the hours of work for different grades in the teaching category are disproportionate. It has been stated that a Professor lectures four or five times a week, each time for a period of 45 minutes. The lecturers have 18 periods a week, whatever may be the amount of research work that is supposed to be carried on. We do not appreciate the manner in which responsible academic duties are being discharged by some of the Professors in the University. We are driven to the conclusion on the materials placed before us that even if some of the members of the teaching staff in the employment of the University possess post-graduate qualifications and may be good teachers, their contribution in the academic development of the University is far from satisfactory, as they have developed the mentality of exploitation and power. It is true that every University, for the matter of that, every organisation, depends upon proper personnel being available; unfortunately, in this University it would appear that merit is not appreciated as it ought to be with the result that the University is controlled by undesirable elements.

Procedure To Be Adopted For Consideration

Reference has been made to the fact that under Section 5(2) the Visitor has been pleased to appoint us as a Committee to inspect and report upon the present state of the Banaras Hindu University under certain terms of reference that have been given to us. Under Section 5(3), the Visitor has given notice to the University of his intention to have an inspection or enquiry to be made and the University has, under powers vested in this Section, appointed a representative, who in this case is the Vice-Chancellor, to be present at such inspection or enquiry. We have given every facility to the representative of the University to be present on all occasions when the enquiry was made. We have also furnished him with the various memoranda but, in view of the request made by some of the members that the fact that they have submitted memoranda should be treated as confidential, we have furnished such memoranda without giving information as to who it was that had forwarded the memoranda. We come to Section 5(4) which is of significance and we wish to invite attention to the language used in this sub-section. It is stated that the Visitor

may address the Vice-Chancellor with reference to the result of such inspection or enquiry and the Vice-Chancellor shall communicate to the Executive Council the views of the Visitor with such advice as the Visitor may offer upon the action to be taken."

From a perusal of the report that we have submitted, it will be obvious that in material respects, the report does imply that some of those who are now members of the Executive Council are themselves in some measure or other involved in some of the incidents which have been referred to. To a large extent, the present personnel of the Executive Council has, in our opinion, been responsible for the state of affairs in this University. We have no objection to our report being perused by anybody or being subjected to any fair or just criticism. In our opinion, a discussion in the present Executive Council will lead to considerable trouble and disharmony in the University. It is only from this point of view that we feel, in as much as it is not incumbent upon the Visitor to address the Vice-Chancellor with reference to the result of such inspection and enquiry, the Visitor may consider the desirability or otherwise of taking measures which we feel are necessary in the present condition of the University and in light of the evidence furnished. After very careful consideration we have come to the conclusion that the advice given by very many influential and impartial witnesses that for sometime the Banaras Hindu University Act should be kept in abeyance is a sound one. In fact, if this is not done, it will be difficult to consider dispassionately the steps that should be taken to reform the University and to get a proper atmosphere in the various University bodies which may have to be thoroughly reconstituted. Any other step would only foster agitation being sponsored or aggravated.

The question may be asked how the University is to function under such circumstances. We may give the instances of some Universities where, for a transitional period when the University Act had to be revised, the old University Act was suspended and a Committee was appointed to help the Vice-Chancellor in carrying on the day-to-day functions of the University and for preparing the necessary Statutes, Regulations and Ordinances according to the revised Act. In one University, such an *ad hoc* Committee to help the Vice-Chancellor was constituted for a period of two years, not because of any gross maladministration in the University but because the new Act would take sometime for the various provisions to be ultimately studied and brought before the authorities concerned and the authorities themselves had to be reconstituted in a manner which would involve a time lag before they are finally constituted. The question then arises as to the method of constitution of this advisory body. We feel that this body should consist of

not more than nine persons with the Vice-Chancellor as its Chairman, such representatives being chosen from persons with academic and administrative experience and one representative being a nominee of the Rector. We feel that this body may, as occasion needs, coopt upto three members, in particular of the teaching staff, the Provost or Chief Proctor, on the advice of the Vice-Chancellor for particular meetings when special subjects are to be considered. We are anxious that this body should meet frequently and consider the various problems connected with University. In the meantime, we feel that certain essential changes are required in the Act itself in the light of its working for the last seven years. We realise that whatever may be the nature of the Act and whatever its Statutes, the successful working of the University depends upon the personnel more than the rules and regulations and it is our hope that if some of our suggestions are carried out, there will be an improvement in the general atmosphere and in the tone of the people appointed to the teaching staff of the University. We are convinced that student indiscipline is a by-product of the activities of some of the teachers and it would serve no useful purpose to disguise the fact that the main emphasis to root out such indiscipline should be on the methods adopted for changing the attitude of some of the teachers and improving their sense of loyalty, discipline and the ideals which they should entertain towards the University.

All the members of the Enquiry Committee have been connected with Universities in one capacity or other and are staunch supporters of the view point that the Universities should be autonomous bodies but this very phrase 'University autonomy' implies other obligations which are sometimes forgotten. In the very interests of University autonomy therefore, it would be necessary to remove the canker wherever it exists in the body politic of the University, to purify the administration and so to say bring about a revolution which will never allow the destructive forces to creep in again. It is therefore with a strong sense of our responsibility and with a great desire to see that the University, which was launched with great hopes and which is known all over the world, does not slip back into unfortunate trends as it has in recent years, that most of our recommendations have been made. We may state that we have no intention of trying to make out that there are not very many good elements in the University who have been, under depressing and unfavourable circumstances, trying to carry on the good work as befits good academicians. To those members of the teaching staff who have stood loyally by their academic standards, we wish to pay our heed of praise but, even as a few unruly and perverse elements could ruin the whole tone of the University, it is necessary to apply remedies which will root out such group polities.

Admission Of Students

We have already referred to the theory propounded by students' organisations and unfortunately by some teachers that there should be no restriction on the number of students admitted to the University, that the first claim should be of those students who come from the neighbouring areas who are poor and who think that, though they may not satisfy the rigid standards laid down, they have still a claim because of their eligibility for such admission. We have referred to the fact that in a residential University of this nature, only those who can be properly accommodated within the campus should be given these facilities and that restriction of numbers is an absolute necessity in every University. The increased numbers seeking admission to the Banaras Hindu University would appear to be due to the following causes: (1) Facilities not being available in particular parts of the State of Uttar Pradesh, particularly in the eastern Districts thereof; (2) The existence of a large number of students who are encouraged into the belief that the Banaras Hindu University being a Central University, they have a right to gain admission, and also the idea prevalent that the Banaras Hindu University should be treated as a poor man's University and therefore such persons should be admitted without any restriction of numbers and irrespective of standards; (3) The most important cause seems to be the feeling and the active encouragement of the same by Principals and teachers themselves that there should be no restriction on admission of students and that everybody who applies ought to be admitted to the University; and lastly (4), till now it would appear that the State Government has not taken sufficient steps to provide educational institutions for the large numbers who pass out of schools. We give below the strength of University from year to year for the last 34 years.

Total Number Of Students In The University

Year	Total No.
1924-25	1,952
1925-26	2,047
1926-27	1,936
1927-28	2,192
1928-29	2,359
1929-30	2,533
1930-31	3,055
1931-32	3,019
1932-33	3,506
1933-34	3,492
1934-35	3,711
1935-36	3,417
1936-37	3,428
1937-38	3,411
1938-39	3,477
1939-40	3,674
1940-41	3,945

1941-42	4,209
1942-43	3,894
1943-44	3,815
1944-45	4,128
1945-46	4,536
1946-47	4,872
1947-48	5,233
1948-49	5,531
1949-50	5,806
1950-51	6,533
1951-52	7,630
1952-53	7,846
1953-54	8,614
1954-55	8,621
1955-56	8,490
1956-57	8,766
1957-58	8,586

In this connection, we would refer to the report of the Allahabad University Enquiry Committee of 1953, where the question of the number of students to be admitted into the University has been discussed. The report states: "We urge that the number of students to be admitted each year should not depend upon the ability of the Vice-Chancellor and heads of departments to resist the pressure which is put on them to increase the number of admissions, but that the maximum figure be resolutely fixed and rigidly adhered to without any hindrance whatever until such time as circumstances justify a reconsideration of that figure. In determining the maximum figure, there are in our opinion four considerations to be borne in mind:

(1) Limitation of space, equipment and financial resources;

(2) The burden in a unitary University on the administrative machinery and on the Vice-Chancellor if the number is very large;

(3) The danger of less of personal contact between teacher and students; and

(4) In regard to those departments where education of a professional nature is imparted, the problem of unemployment.

The report continues: "The opinion of the witnesses who appeared before us was that the maximum should be between 3,000 and 4,500, and in any case, not greater than 5,000. We hold clearly to the view that if the academic standards of the University are to be maintained, a limit should be placed on the number of students who join the University. The number of students is just over 6,000 and it appears to be impracticable to effect a reduction to the numbers proposed by the witnesses. We recommend that the numbers ought to be fixed at 5,000 exclusive of those taking the Diploma or other courses. It is our view that whatever be the maximum as fixed, under no circumstances, the figure should be exceeded, whatever strong pressure may

be and from whatever quarter pressure may emanate." These observations hold good *mutatis mutandis* to the Banaras Hindu University and we entirely agree with the Chairman of the University Grants Commission that the maximum should be fixed and there should be a progressive reduction in the numbers till the number is fixed in such a manner that all the four essentials enumerated in the above report are complied with.

It must not, however, be supposed that we are trying to handicap the students in their natural desire for higher education. At the undergraduate stage, it is the State's responsibility to provide those facilities. We are therefore of opinion that the State Government should be requested immediately to take steps to open colleges if necessary, particularly in the eastern districts of Uttar Pradesh, and to affiliate them to the Gorakhpur University which has been recently started. This would not only enable a more appropriate distribution of student-strength in the different colleges but would also enable the poor students to study nearer their homes at considerably less cost than is possible for them in a city like Banaras and in the University campus. We have already stated that all the colleges outside the campus of the Banaras Hindu University with the exception of the Kamachcha College should likewise be disaffiliated from the Banaras Hindu University and should be affiliated to the Gorakhpur University. We feel that this step is absolutely necessary if we are to ensure the essential nature of the University and the purpose for which the Banaras Hindu University was organised and brought into existence.

There is one peculiar feature of a college in the Banaras Hindu University which has given considerable anxiety—the Ayurvedic College. It would appear at one stage that the founder wanted to encourage pure Ayurveda and started this college with the hope that in association with Sanskrit studies, there would be a renaissance in the branch of Ayurveda and the proper study of this subject. Since then, many changes have been introduced and today, the College is supposed to cater to Ayurvedic studies and to studies in Modern Medicine. It is not our purpose to enter into any discussion on this question nor do we feel competent to do so and it does not come within our terms of reference. The problem with this Ayurvedic College has been that there has been a sense of frustration among the students which, to a very large extent, is due to the manner in which the studies are being organised and the teaching element is recruited. It has been freely stated that the cause of the strikes which were going on for some time was due to the fact that the students were not able to get a Principal whom they wanted, a person who is qualified in Ayurvedic Medicine and in Modern Medicine and with high standards of qualification either foreign or indigenous, ranking with the qualification of

M.D., or M.S., F.R.C.S., M.R.C.P., etc. The best efforts of the Vice-Chancellor have not resulted in securing the services of such a person and the last the Commission heard was that a gentleman in Himachal Pradesh, who was formerly a student of this college and who had gone abroad and obtained a higher qualification, was expected to join as Principal and after much correspondence, it seems very doubtful whether he will be willing to relinquish his present post. The students also insisted that such a person should have been a student of the Ayurvedic College to ensure his sympathetic consideration of the requirements of the students and of their demands. In fact, the qualification has been changed from Ayurvedacharya to A.B.M.S. This problem may be deemed to be an all-India problem and it ought to be decided on an all-India level how the indigenous systems of medicine should be taught and to what extent modern medicine should also be associated with the teaching. We refer to one particular memorandum wherein it has been stated that the best way of securing this result would be to require persons to take a qualification in modern medicine and then to take to Ayurvedic studies or vice-versa so that the person would be equally qualified in both systems. Such a person can be given a higher qualification like M.D. Coming as it does from one of the products of the Ayurvedic College, it seems to us that the suggestion should not be altogether ignored. The position in Western Countries is that a person may practise any system of Medicine—Homoeopathy, Naturopathy, Allopathy, Hydropathy or any other system—but he must possess the basic qualification in Modern Medicine and be registered before he claims to qualify himself to practise any other system. This is the rule in the United Kingdom. We are not expressing any view on this particular system but a point which is worth consideration more seriously is : Can a University afford to maintain a hospital which is to cater to the general public and would it be possible to expand that hospital in the manner in which it has to be expanded without unlimited resources being placed at the disposal of such an institution ? We feel that the maintenance of the Hospital for Ayurveda or modern system of medicine or for both should be the responsibility of the State Government and we do feel that the authorities should consider the desirability of the State taking over the hospital, and if the University is to grant degrees, the teachers in the College and the equipment for the College may be provided out of contributions by the Central Government. The difficulties that have been experienced by a University having to maintain a Medical College and Hospital should convince both the Central and State Governments of the view that a hospital which caters to the patient of the locality is primarily the responsibility of the State. We are also of the opinion that another

suggestion thrown out may have to be considered. Recently, the Sanskrit University has been started in Banaras. Ayurveda being so closely associated with Sanskritic studies, the question whether the Sanskrit University started in the heart of the city could not have close liaison with the Ayurvedic College and Hospital may be considered. We consider that the Ayurvedic Hospital should function in the Banaras Hindu University but for study of modern medicine, the State should have a properly equipped general hospital in the city which will be open for the students. The amenities for the students at present are meagre and a hostel is an urgent necessity.

Women's College

There is only one Women's College in the Banaras Hindu University but representations have been made to us that unfortunately the College has not had the same amount of attention that other institutions in the University have had. For some reason or other, it has not been possible to start science courses in this College. It has also been brought to our notice that the scales of pay of all women teachers have not been improved. At the time when the Founder was responsible, a Vice-Principal was appointed with no such post having been created and with qualifications which will not pass muster in a University College. The question of appointing a Principal is hanging fire for some time and we regret that a considerable amount of frustration seems to be prevalent among the teaching staff of this College, some of them with very high qualifications and a great deal of teaching experience with their claims not attended to. We think this is a matter which ought to receive attention and a person with proper qualifications should be appointed as Principal.

College Of Music

This College has been under the direction of a distinguished musician of North India. By virtue of the age limit he has retired. It was, however, represented to us that the whole scheme of Music studies was drawn up by him and it was necessary that his guidance should be available if the scheme is to be successfully implemented to the highest stage. We are under the impression that when a scheme has been organised, it should be capable of being implemented by suitably qualified persons. A proper Principal conforming to the academic requirements and as per Regulations should be appointed to carry on the work and the College of Music should be thoroughly reorganised with Music as a branch of the humanities.

Constitution Of The University Bodies

We shall now take up some of the major changes which may be required in the Constitution of the

University and in the working of the several departments. We have already suggested that as an interim measure, the various bodies constituted under the Act should be suspended and their place taken by an ad hoc Committee with the Vice-Chancellor as Chairman to perform the functions under the Act. We have also stated that we do not feel that the procedure contemplated under Section 5(4) should in this particular case be utilised. After careful consideration and with due regard to the provisions of the Act, we feel that the state of affairs in the University is such that emergency action is required. In the interests of the University, and not because we wish that our report should not be spotlighted by persons who can express opinion, we have expressed the view that it would serve no useful purpose if the report is placed before the authorities as contemplated under Section 5(4). On the other hand, even at present, we have received supplementary memoranda which clearly indicate that certain of the groups realise that a good deal of evidence has been placed before us which is not to their credit or in their interest and therefore certain persons or organisations are trying to make it appear that there is nothing wrong with the University, that the only flaw is that the Vice-Chancellor and the official bloc do not allow democracy to prevail. In the light of what we have been able to gather through the memoranda and through evidence tendered by very responsible persons, we feel that such a statement is absolutely unwarranted and if the University, before it reopens, is at all to function in a proper atmosphere, urgent and energetic steps should be taken; and, in the meantime, the Constitution will have to be revised carefully taking into consideration the manner in which it has been worked within the last seven years. Before going into the question of the provisions of the Constitution, we feel that it is necessary that a small Committee consisting of a High Court Judge, a Vice-Chancellor and a public man of eminence should be appointed who, with experts co-opted, may act as a screening body to examine the cases of teaching and administrative staff and to what extent the unruly elements have come to play a part in the affairs of the University to its detriment.

We realise that the amended Act was passed in 1951; but the experience of the last seven years shows that unless certain radical changes are introduced and certain categories of personnel are deprived of any part in some of the University authorities, it is idle to expect the University to function as it ought to. We are aware of the fact that whatever may be the amendment of the Act, the success of any University depends not upon the Act, Statutes, Regulations and Ordinances but on the personnel and the sense of responsibility and discipline that they bring to bear in the discharge of their high and onerous duties as academicians. Even so, in the light of

the present working of the University, we have had the advantage of several eminent persons coming forward and suggesting certain radical changes. We shall take up some of these changes. We would recommend that an expert Committee consisting of academicians and persons noted for their administrative talent and public spirit should finally advise Government as to the shape of the University Act to be implemented.

The Visitor

The President of India is the Visitor of the University. But we feel taking into account some of the most disorderly scenes enacted in the University that it is very desirable that he should be given the power to suspend the operation of the University Act under conditions where gross indiscipline, organised strikes or chaotic conditions prevailed. The President has such power in the political field in regard to suspension of the administration in the States. It is no doubt true that this will be considered an infringement upon academic life and University autonomy but those who bring in those changes must themselves realise that they are largely responsible for the unfortunate recommendations that have been made by eminent persons of integrity.

The Court

We think that the statement that "the Court shall be the supreme governing body of the University" is inappropriate. In several cases, this has been considered as an indication that the Court can veto or amend any proposals, academic, administrative or otherwise that is put forward by duly constituted authority. It is no doubt true that there is a qualifying clause "save when these authorities have acted in accordance with powers conferred upon them under this Act, the Statutes or the Ordinances," whereby the Court cannot interfere but even so, the tendency for acrimonious discussion and for party politics to creep in consequent upon the misunderstood expression "the supreme governing body of the University" has been made obvious to us by several of the witnesses. Even when the Court is given power to review acts of certain of the University authorities, we feel it is necessary to impose the condition that any such act cannot be overruled unless by two-thirds majority as obtains in the provisions of certain of the Universities and only when the relevant Statutes, Regulations or Ordinances are brought up for consideration or when there is a definite official item on the agenda pertaining to the decision arrived at by such bodies.

We feel that the composition of several authorities of the University requires considerable revision in the light of the experience gained even within these seven years, not to speak of the experience of earlier decades. One of the fundamental considerations which has been forced on us is that the system of elections to various academic

bodies and University authorities should, to a certain extent, give place to a system of automatic preferences. In other cases, the system of election should be controlled by adopting the system of proportional representation with the single transferable vote wherever this is possible. A third point which has been advocated is that inasmuch as this is a Central University and practically all the funds are given through the University Grants Commission by the Central Government, the spirit of a Central University should be maintained and the composition of the various bodies should reflect the characteristics of a Central University. It may be necessary wherever possible that due representation is given to the component parts of the Indian Union and no monopoly should be allowed for any particular area wherever the Central University may be situated.

The Chancellor And Pro-Chancellor

We note that the Chancellor and the Pro-Chancellor are to be elected by the Court. This has resulted in a great deal of canvassing and naturally persons who ought to be thought of for these posts are most disinclined to accept such an honour. An instance has been brought to our notice where in the time of the previous Vice-Chancellor, two eminent persons were suggested for these high offices but the Court turned it down on grounds that could not well be understood and this was largely due to the predominance of group politics within the Court. We feel that such exalted offices as those of the Chancellor and Pro-Chancellor should not be filled by election by the Court. We feel that it would add to the prestige of the University if the Vicc-President of India and the Chief Justice of the Supreme Court be *ex-officio* Chancellor and Pro-Chancellor respectively.

Rector Of The University

The Act provides that the Visitor may, on his own motion or on the recommendation of the Court, appoint such person as he thinks fit to be the Rector of the University. We feel that under existing conditions and in conformity with the practice in most of the State Universities, it would perhaps be feasible to appoint the Governor of the State as Rector for the time being.

Appointment Of Vice-Chancellor

The appointment of Vice-Chancellor has led to a great deal of comment at all times. This office is to be filled by a person selected from among a panel of at least three persons recommended by the Executive Council. Unless the Executive Council is so composed that it can avoid group politics and come to right decisions, this at once puts the Vice-Chancellor into a very unfortunate position. If the name has been included by a majority vote as is likely to be the case, or if one of those persons whom even the minority,—a soci-

ferous minority, has been backing is not appointed as Vice-Chancellor, the person who assumes office is at once heavily handicapped with the result that attempts are made to suggest that there are rival parties, the Vice-Chancellor's party and the party opposed to the Vice-Chancellor. This has been the bane of the Banaras Hindu University for several years. It would therefore be well for the Vice-Chancellor to be selected by the Visitor.

We do not feel that it is necessary to invest the Vice-Chancellor with more powers than he has. There is one direction however where the Vice-Chancellor's powers should not be curtailed and that it is in the matter of discipline of the students. The present position is that the Standing Committee is expected to deal with all matters of discipline, the result being that this Committee has been a great handicap rather than a help in enforcing discipline among students. The Vice-Chancellor should deal with matters of discipline subject to consideration by the Executive Council in special cases.

The Pro-Vice-Chancellor

It has been suggested that the post of Pro-Vice-Chancellor is not necessary in the University. On the other hand, several persons have stated that it is very necessary in view of the large amount of details of administrative work that is to be carried on in the University. It is laid down that the Pro-Vice-Chancellor shall be appointed by the Executive Council on the recommendation of the Vice-Chancellor and on such terms as may be laid down in the Ordinances and, where the recommendation of the Vice-Chancellor is not accepted, the matter shall be referred to the Visitor. The post of a Pro-Vice-Chancellor seems to us to be unnecessary. It is preferable to have instead an officer in the administrative cadre to relieve the Vice-Chancellor of routine duties.

Treasurer

This office has no doubt been in vogue for many decades but we think the time has come when the whole provision of the Treasurer should be reviewed. When the University Act was first passed in the year 1916, the state of the University was such that the Treasurer might be elected by the Court and he might continue in office for a period of five years. Those were days when the finances of the University were very limited and when it would be possible for a person in an honorary capacity to perform all the duties of a Treasurer. Today, the annual budget of the University exceeds one crore of rupees and we have been told that with *ad hoc* grants that have been given by the University Grants Commission, the amount in some cases is nearer Rs. one-and-a-half crores. While we should state that the distinguished persons who have held the office of Treasurer have done their best for the University and they have discharged

their duties in a most conscientious manner, it is time that such heavy responsibility was not laid on a person who is elected by the Court from a panel of three names nominated by the Executive Council. On the last occasion, the very election of Treasurer gave room to considerable disharmony and it is not likely that, if this provision is allowed to continue, persons of the requisite calibre would be forthcoming to act as Treasurers. But even more important than this consideration is that we can no longer expect a person to discharge in an honorary capacity the duties in view of the large administrative and financial responsibilities now devolving upon the University. We therefore suggest that there should be a Finance Committee with a Chairman who will be responsible for the financial administration of the University. Such a Finance Committee has been in existence in other Universities and we think it is time that in a Central University like this, with large funds which are to be spent, such a Committee should be appointed. The Finance Committee which we have in view is a small Committee of five to seven persons with the Vice-Chancellor as Chairman.

The Court

The composition of the Court has been subject to several criticisms from many persons. We have already referred to the manner in which the powers of the Court should be restricted. In the light of our later observations, the composition of the Court will have to be altered.

Representatives Of Ex-Students

It is laid down that 15 representatives should be elected by the alumni (old students) association or old boys' association established in accordance with Statute 29-A. The bulk of the evidence before us goes to show that this constituency has become the monopoly of a particular group and that the elections are manipulated to get the maximum number of members into the Court by methods who do not bring out the intentions of the Act. Two suggestions are placed for consideration. In the first place, these representatives should be elected under a system of proportional representation by the single transferable vote, as exists in many of the Southern Universities. Secondly, a suggestion has been made that in view of the all-India nature, there is little or no chance of the alumni residing in different parts of the Indian Union to gain representation under present conditions; and although it is true that proportional representation would, to a certain extent, cure this state of affairs leading to concentration of power in a small group, we feel that it is worth considering whether representation should not be on a more distributive basis. We would commend the system by which the votes can be exercised in polling booths and where it is

very necessary, postal vote may be permitted. The postal ballot has been misused and evidence goes to show that ballot papers are collected in numbers from the Registrar's office or from the Post Offices by interested persons.

We feel that the whole question of donor-representatives should be reviewed. This provision was probably necessary at the time when the funds of the University were limited under a foreign-dominated Government and had to be increased but, under present conditions, it would appear that as practically the whole of the revenue comes from the Central Government, this may be further simplified and limited.

The third category of persons to be represented on the Court are persons representing the learned professions, industry and commerce. Under the Act, 10 persons are to represent the learned professions to be elected by the Court; five persons to represent Industry and Commerce. We are afraid that the elections by the Court have not resulted in the intentions of the Act being duly observed. We do not wish to cast any reflections upon the persons who might have been elected under this category. From the evidence tendered before us, we are convinced that this method of representation has been utilised by the power bloc to import into the Court persons who would at all stages be inclined to support them on the basis of *quid pro quo* for their assistance at the election. Time has come when this representation should be totally removed from the purview of the Court and the Visitor given the power to nominate a certain number representing these interests or the right may be given to the Chambers of Commerce.

Representatives Of Parliament

The representation of Parliament need not be disturbed.

It is laid down in the Act that representatives of Hindu, Buddhist, Sikh and Jain culture and learning should be elected by the Court, five persons representing the Hindu culture, three persons, one each to represent the Buddhist, Sikh and Jain culture and learning. We are constrained to state that there has been a considerable amount of dissatisfaction that these persons may not always command the confidence of the particular interests concerned. In fact, the Sikh community has strongly felt that it was not properly represented and the Hindus have likewise made their comment that these have been used by the power blocs, who by virtue of their election are bound to support them in several of their activities. We feel that if such representatives are to be in the Court, they must be through well defined organisations or should be nominated by the Visitor. It is a matter for consideration whether under the Constitution in a secular State, such representation would be valid or is at any rate desirable.

Nominated Members

This is very necessary but at the same time, we feel that the persons so nominated must be in a position to attend the meetings of the Court, which we understand are generally held only once a year. When important measures are to be discussed, the power groups are dominant, the teaching element which has been given such excessive representation in the Court has not failed to support these groups, and the Vice-Chancellor and members of the Executive Council who propose any measure find themselves helpless against a virile and not always fair criticism of some of these dominant groups. In fact, meetings of the Court have come to be regarded with some amount of dread by persons in authority and from the proceedings, we feel that it is the Professors and Teachers who have contributed not a little to a great deal of disharmony which prevailed at Court meetings. It seems to us therefore that in making such nominations, *particular care should be taken to see that persons nominated are in a position to attend these meetings.*

The Executive Council

This is the most important authority of the University which has got to deal with the day-to-day administration of the University in several respects. Theoretically, in a University which is run on academic lines, there may be every reason to suggest that the teaching element should be fairly represented. In actual practice, however, this has again led to a state of affairs where group politics dominated. More than one Vice-Chancellor has had to comment on the fact that some of the Principals and Professors have dominated and even coerced others into submission. We think that this Executive Council should consist of a limited number, not more than 15 with the Vice-Chancellor as Chairman. The Registrar should be the Secretary of all University bodies without any right of participating in the discussion or voting.

Here we may refer to the institution of Principals. Several of the witnesses, both those connected with the teaching posts and others, have stated that the institution of Principals in a residential University has brought about more cleavage and more of bitter estrangement between members of the teaching staff than any other institution. The Principal once appointed continues for life and, with his power and position as such, he dominates, being *ex officio* on all bodies. It has been reported that the Principals are a law unto themselves; they do not allow heads of departments to express their views or at least they ignore their views; they do not give adequate consideration for the needs of the different departments and they play up divided loyalties so that it has been reported in almost every college that there are two blocs, one, the Principal's bloc, the other consisting of those estranged and therefore frustrated. The

recent appointment of Principals of Colleges as Chief Wardens has considerably enhanced their hold without increasing their responsibilities. It has been stated by more than one representative that, in their discharge of academic duties, the Principals do not feel that they have any responsibility and some do not take even 15 lectures in an academic year while others have to undertake greater amount of work. We are not prepared to discard altogether the criticism that favouritism and nepotism prevail to a very large extent in some Colleges due to the activities of the Principals. We have also been told that in the Selection Committees, the Principals play an important role and that the selections are by no means in the interests of the University. The very composition of the Selection Committees requires to be changed. We shall refer to this at a later stage. The demand has been made by very responsible persons that the posts of Principals should be abolished and that in *their place, there should be Deans of Faculties*. We are inclined to view this suggestion with sympathy. We do not see why in a residential University there should be Principals who would be like the fifth wheel in a coach. We are of opinion that the Deans should be elected by virtue of their seniority and that the Deanship should rotate, the maximum period being three years. The only exception would be the Principal of the Women's College who has particular responsibility and should therefore be on the Executive Council. We would call her the Dean of Women's Education and she should be responsible for all aspects of women's education and more primarily for the welfare of women students wherever they may be studying. She can have an assistant to help her who may be a Professor in the Women's College.

We suggest that the departments be grouped as follows:

I. Arts Including Commerce

Department of Politics,
Department of Geography,
Department of History,
Department of Philosophy,
Department of Economics,
Department of Commerce,
Department of Ancient Indian History and Culture,
Department of Indo-Sumerian Studies.

II. Science

Mathematics,
Botany,
Chemistry,
Geology,
Physics,
Zoology.

III. Oriental Learning

Sanskrit and Pali,

Ayurveda,
Mimamsa and Dharma Sastra,
Vyakarna,
Jyotish,
Sahitya,
Darshan,
Theology,
Religious Instruction,
Hindi, Arabic, Persian and Urdu.

IV. Engineering and Technology

Metallurgy,
Mining,
Ceramics,
Glass,
Pharmaceutics,
Industrial Chemistry,
Electrical Engineering,
Civil and Mechanical Engineering.

V. Fine Arts and Other Professional Subjects

Agriculture,
Surgery,
Arts and Architecture,
Law,
Music and Fine Arts,
Education.

The manner of the composition of the Executive Council should be left to the Expert Committee suggested. The members of the Executive Council may, unless otherwise specified, hold office for a term of three years except the *ex officio* members. The Registrar will be the *ex officio* Secretary.

The Academic Council

The Academic Council may consist as at present of the members mentioned, except that in view of the abolition of the posts of Principals of Colleges suggested, they will not be represented.

Standing Committee Of The Academic Council

The Standing Committee of the Academic Council as composed at present is an unwieldy body. We feel that its composition should be revised. It should be merely an advisory body, its decisions being subject to ratification by the Executive Council. We believe that the conduct of examinations should be the concern of the Executive Council as well as the declaration of the results. It should also be the function of the Boards of Studies concerned to suggest the panel of persons both for internal and external examinerships, who may be considered suitable for appointment. The Standing Committee may recommend the award of stipends, scholarships, medals, prizes, etc. which should be approved by the Executive Council.

Finance Committee

As regards the Finance Committee, we have already made our recommendation.

Selection Of Teaching Personnel

In several of the memoranda that we have received and from the evidence tendered there seems to be considerable dissatisfaction at the manner in which teaching personnel have been selected for several years. There does not appear to have been a sound policy both in regard to the advertisement inserted and in regard to the constitution of the Selection Committee. It has been openly asserted that the advertisements are sometimes so drafted that they may keep out somebody or be extremely advantageous to some others. We realise that these criticisms may be made by persons who have been disappointed but, when such criticisms have been made and specific reference invited to certain of the advertisements, we feel that the manner in which advertisements are inserted requires looking into. At present, Principals are asked to send these advertisements and they do not consult heads of departments who are competent to advise on the qualifications to be prescribed for the persons to be recruited with a view to get proper persons for the Department. In this connection, our attention has been drawn to the advertisement for the Professor of Pharmaceutics in the University. The first advertisement required among essential qualifications "Good Master's Degree in Pharmaceutics". In the second advertisement, this essential qualification was changed into "Good Master's Degree in Pharmaceutics, or Pharmaceutical Chemistry or Chemistry". The first advertisement, it would appear, was based upon the draft given by the Principal and issued on March 28, 1957. The Head of the Department was not consulted and he had also a grievance in the matter. The revised advertisement containing modification in the qualification of the candidate required for the post was issued on August 2, 1957. It is stated that the original advertisement sent by the Principal was not strictly in accordance with the terms of the recommendations of the Visiting Committee of the All India Council for Technical Education. In any case, this has led to a great deal of controversy and unpleasantness.

We have had another unfortunate case placed before us. This has reference to an eminent Professor in the University, Dr. Joshi, who is a D. Sc. of the London University. This qualification was challenged by some of his colleagues in the University and an acrimonious correspondence was carried on with the authorities of the London University. In spite of their best efforts to explain that the qualification obtained by Dr. Joshi was a *bona fide* qualification and for technical reasons it had not been possible actually to confer the degree at a Convocation, the persistence with which efforts were

made to belittle and belie the statements of Joshi finally resulted in a strong protest by the Principal of the London University. Both the Vice-Chancellor of the Banaras Hindu University and the Inter-University Board of India were apprised of these facts by the Principal of that University and it was only when a strong line was taken by the Vice-Chancellor that this unfortunate and unbecoming correspondence was stopped by the clique which was behind this move.

While we do not want to leave the matter relating to advertisements entirely to the heads of departments, we realise that the process should be far more thoroughly scrutinised and it should be possible in some cases at any rate to get expert advice from other Universities giving the scope of the work that is expected to be performed. A very large number of advertisements are no doubt published in various newspapers in India, but it has been stated that the composition of the Selection Committees leaves much to be desired. Some of the experts are persons who are more or less amenable to the wishes of some of those who have *ex officio* standing in the Selection Committees and, being drawn from the neighbouring Universities, a sense of mutual obligation is sometimes said to prevail with the result that the Selection Committees do not command the confidence that they ought to among the teaching staff concerned. Instances of this nature have been brought to our notice. We think therefore that the Selection Committee should be constituted under a statutory provision and it should consist, as in some other Universities, of the Vice-Chancellor as the head of the Selection Committee, the Dean of the Faculty concerned, and three experts nominated by the Executive Council as contemplated by us, two of these experts being outside the State of Uttar Pradesh. The experts should really be selected on an all-India basis. The Expert Committee should interview the candidates and, in some cases, they may even meet in other centres like Bombay, Delhi, Calcutta or Madras. If the post to be filled be of Reader or Lecturer, the head of the department may be associated with the Selection Committee, if he is not also the Dean. It should not be open for the Executive Council to overrule the advice offered by the Selection Committee by itself appointing such persons. We would prefer the Selection Committee giving suitable names in the order of priority and the Executive Council to select only the first of those recommended. If for any reason, the Executive Council finds that the candidates suggested by the Selection Committee are not obviously in the interests of the University, they may refer the question to another Selection Committee composed on an *ad hoc* basis and by experts as suggested. This practice has been working very well in some Universities and there is no reason why it should not work well in Banaras University. In no case should any member of the Selection

Committee be eligible for the post.

Library

We are afraid that the Library in this University is not put to proper use nor is it functioning in any satisfactory manner. The librarian should be a person well-qualified and of experience, who will contact the Deans of Faculties and Professors and will be responsible for suggesting books to be acquired for the library. Grants given for the library should be distributed over the several Faculties in due proportion taking note of the requirements of the Faculties concerned. It is regretted that proper accession registers have not been maintained nor a card catalogue. It is very necessary that there should be a thorough check of the library and the books acquired over a period of years should all be accessioned and reported upon. A qualified librarian with sufficient staff should be available in the library. Books for the library should be ordered after getting the permission of the Vice-Chancellor and according to the requests made by the several Deans who should themselves consult the respective Faculties. The necessity for having small departmental libraries is obvious. In some of the institutions, it is very necessary that departmental libraries should be available. We suggest that in the Women's College, there should be ample provision for a library. We also suggest that certain of the text books necessary for students should not only be duplicated but multiplied, perhaps half a dozen to a dozen copies being acquired for the use of students. So far as the teaching personnel is concerned, there should be a limitation in the number of books taken by a teacher and we suggest that a Professor should have 20 cards, a Reader 10 cards and a Lecturer 5 cards which he can utilise for taking books whenever necessary.

Office Reorganisation

We feel that there should be a thorough reorganisation of the office. It may be divided into different sections and the responsibility should be that of the Registrar and the Vice-Chancellor to see that these function properly. There is little or no necessity for the Professors to worry about the office and prompt registration and despatch of letters should be the rule. Sanction to all circulars sent out should be obtained. We feel that all circulars should be seen by the Vice-Chancellor so that no question of privilege should arise or criticism offered. We do not think it necessary to draft as Registrar or Assistant Registrar members of the teaching personnel. They are not best suited persons for administrative work and we would rather suggest open recruitment for such posts without any effort to manipulate some member of the teaching staff to any of these posts. We would also suggest that some of the persons may be qualified in Accountancy, Book-keeping, Commercial Correspondence,

dence and the way in which records should be kept. It is disheartening to note that certain of the official records disappear without anybody being held responsible for such disappearance.

Audit And Stock-Taking

The report of the honorary auditor and the recent reports of the Audit Department seem to show that the state of the accounts has not been very satisfactory for several years. While we greatly appreciate and are thankful to the honorary auditor for the good work that has been done, we feel that every year, according to the Act, a thorough audit of the accounts by a person appointed by the Central Government on the advice of the Comptroller-General or similar official of the Central Government should be made. We have also been distressed to note there was great disparity in the maintenance of the stock-registers by the different members. Regular stock-taking is not in vogue. There is loose financial control over the permanent imprest. It has been reported that there is enormous expense in the purchase of stamps and that service postage is used by Professors in private correspondence. Many of these irregularities should be checked by an annual stock-taking and maintenance of stock-registers for which the Professors concerned and heads of departments should be held responsible. Breakages and loss should be reported and verified by a small committee appointed by the Vice-Chancellor and, in cases where the loss cannot be accounted for, the persons concerned should be held responsible. In regard to expenditure, it has been brought to our notice that sometimes the expenditure far exceeds the budget allotment. The procedure to be adopted should be that all indents from Deans or other Professors should be sent to the Vice-Chancellor and that the Registrar should prepare, in each case, a statement which will show the provision in the budget before the indent is sanctioned. This should indicate: (i) the amount allotted in the budget, (ii) the amount already expended; (iii) the amount to be spent on orders already placed; (iv) the balance available, and (v) if the balance available is sufficient to meet the cost of the indent.

Construction Of Buildings

A large programme for the construction of buildings is now on hand. We are not in a position to say that these constructions can be effectively supervised by the machinery at the disposal of the University. When the grants come from the University Grants Commission for construction of hostels, construction of additional buildings and for laying of roads, underground drainage system, water supply and electrical connections and the various improvements that are to be made, we feel that it is very necessary that the Chairman of the University

Grants Commission should appoint a person with the status of Executive Engineer for supervision with a small staff. It is entirely his responsibility to report on the progress from time to time, to check-measure all items of work, to scrutinise estimates, etc. and to call for tenders, and in every way to supervise all building operations in the same way as the Public Works Department is expected to do. After the building programme is over, there should be a permanent Engineer with a small staff who will be responsible for the supervision of the buildings, for the occupancy of such buildings by members of the staff, to see that no unauthorised occupants take possession of the buildings, to see to their repairs, and to ensure that the whole compound is kept tidy and that unauthorised sheds or *gumties* are not opened within the campus.

Ministerial Staff

We have been presented with a memorandum on behalf of the Ministerial Staff Association and representations have been made about their prospects, etc. We feel that this is a question that can be gone into by the new Executive Council in detail and wherever there is ground for improvement and wherever injustice is done, they could be rectified. We must express our surprise that the President of the Ministerial Staff Association is a Professor of a College and we think it very undesirable that any member of the teaching staff should have anything to do with the Association. We have noticed the correspondence that this Professor as President of the Association has had with the University. We take strong exception to such correspondence and we suggest that the Professor be required immediately to sever his connection with such associations.

Other Representations

We have also received representation from the Mazdoor Association i.e., Class IV employees. We feel that it is not possible for us to enter into consideration of all these grievances. They should really be left to the Executive Council of the future to look into. We are sure that due consideration will be given to their representation and steps taken on the recommendation of the Vice-Chancellor to improve their conditions.

Other Complaints And Grievances

We have received a number of other complaints and grievances but, within the terms of our reference and to the extent to which they are applicable we have taken note of them. We are not in a position to suggest remedies for such grievances. These personal grievances should be brought to the notice of the Executive Council of the future and we feel sure that the Vice-Chancellor will present the cases and the Council will decide on the issues.

Conclusion

We have, after careful consideration of all the issues involved and after studying the memoranda and examining several witnesses, come to the unanimous conclusion that radical changes are required if the University is to function as a University. We have given our detailed recommendations in the body of the report. We would like to mention that it is essential that the Visitor should take steps to see that the authorities of the University are suspended for the time being and that the affairs of the University are vested in a strong Committee such as the one we have suggested. We are also of opinion that the Act itself may need revision in the light of the suggestions submitted in the report. We have suggested that a Screening Committee should review the appointments made to the teaching staff and the work of the members of the teaching staff and, where necessary, suggest steps to be taken in the light of their findings. The indiscipline so frequently exhibited in this University is due to several factors which we have stated but it appears to us that the basic factor is the attitude of the teachers, some of whom play the role of teacher-politicians and are not disinclined to exploit the grievances of students. We have also stated that in

regard to any of the University Unions and their activities, a sound convention should be established and there should be a limitation on the number of years within which students should aspire for these honorary places, as indeed there is in the field of sports. We fully realise that students have some handicaps and they should as soon as possible be remedied. We have given in detail some of the necessary amenities that the students should be given. We are of the opinion that the University should be a completely residential University and that, excepting for one college, the Kamachcha College, it should have no affiliations with other colleges; nor should it be in a position to hold examinations for private candidates and confer degrees and diplomas in such liberal measure as is being done at present. The whole object of a residential University is thus frustrated. We have made specific recommendations in regard to Selection Committees, Appointment of Examiners, Constitution of Boards, Councils, Court, Academic Council and other bodies. We have suggested that a high power committee should be appointed to study the Act in the light of this report and the information placed at our disposal and make suitable recommendations to the Government.

MINOR IRRIGATION COMMITTEE, 1957—REPORT

New Delhi, Ministry of Food and Agriculture, 1958. 147p.+vp.

Convener : Shri Mahavir Prasad.

Members : Shri S.R. Vasudev; Shri B.P. Saxena; Shri H.K. Nivas; Shri B.N. Banerji; Shri U.S. Mahida; Shri H. Anantachar; Shri J.C. Hardikar; Shri P.S. Rajagopalan; Shri P.V. Divatia; Shri C.M. Bennet; Shri Moti Ram; Shri H.M. Antani; Shri G.R. Nangea; Shri J.N. Mitra; Dr. J.C. Ramchandani; Shri S.D. Kalra; Shri U. Ananda Rao; Shri Narasimha Rao; Shri Fahim Beg; Shri F.P. Bulakani; Shri D.S. Sinha.

Joint

Secretary : Shri M. Lal.

APPOINTMENT

The Minor Irrigation Committee was constituted under the Ministry of Food & Agriculture (Department of Agriculture) vide Resolution No.F.9-5/55-IRN, dated July 12, 1955, to study the work done in the field of Minor Irrigation and thereafter assess future possibilities and indicate steps that need be taken by the States to

make the minor irrigation schemes more effective in the irrigation expansion of the country.

TERMS OF REFERENCE

- (i) Collect available data with regard to minor irrigation works;
- (ii) Examine the difficulties experienced by the States and the scope for further expansion; and
- (iii) Render all possible assistance and guidance and to make suitable recommendations to enable the States to launch their schemes on a more sound footing.

CONTENTS

Introductory; Recommendations; Appendices I to V; Report of the Minor Irrigation Committee on: Hyderabad; Mysore; Erstwhile Rajasthan State; Madhya Bharat; Erstwhile Vindhya Pradesh State; Erstwhile PEPSU State; Saurashtra; Himachal Pradesh; Delhi; Orissa; Erstwhile Madhya Pradesh State; Uttar Pradesh; Bihar; West Bengal; Travancore-Cochin; Kutch; Bhopal State; Erstwhile Ajmer State.

RECOMMENDATIONS

Surface Water Diversion

For assured irrigation benefit, it is desirable that the minimum flow of the streams and its duration are invariably ascertained specially on streams that are flashy and whose discharge widely fluctuates. It is true that the age old practice of putting temporary embankments across the streams every year is now being replaced rapidly by pucca masonry constructions. The bunds should be satisfactorily completed to bring about lasting benefit from these works. With this end in view it would be desirable to study the use that the upstream water is already being put to. Such a study may bring out the advantages of combining two or more weirs at one place. State Governments should also examine the existing alignments in the layout of the projected water distribution system as in the case of Sakhri and Kumri irrigation schemes in Bihar to explore the possibilities of an integrated layout.

Surface Water Storage

In the hilly and undulating regions, it is desirable to have small storage in order to avoid costly construction of water channels.

For an economic design of the storage schemes, basic hydrological data of flood discharge, minimum flow, coefficients of yield and run-off need be determined.

For storage that are proposed in relatively drier parts of the country, the water yield from single catchments will have to be increasingly supplemented by diversion of flow from adjoining catchments.

Chain System Of Tank Irrigation

The State of Madhya Pradesh and Orissa should examine the possibilities of setting up chain systems of tank irrigation as in vogue in parts of Bombay and Mysore, as it is important that adequate surplusing arrangements are provided so that if any tank breaches, the tanks situated lower down are saved.

Surplusing Arrangement On Tanks

Every tank should be designed for passing the flood discharge from the catchment. The flood discharge should be carefully computed so that an economic design for surplusing can be decided.

Ample capacity for flood surplusing need be provided on tanks that are constructed in the areas frequented by cyclones.

Evaporation Losses On Tanks

In arid regions it would be desirable to decide construction of tanks in deep and lower area of water spread so that evaporation losses are minimised. It may be desirable to utilise the entire storage in rabi without attempting to carry over supplies to the following kharif.

Silting Of Tanks

In States where appreciable silting of tanks is observed, it would be desirable to provide initially for extra storage capacity.

It may be advisable to discourage cultivation in tank beds and also take special care of the foreshore area in order to reduce the silting of tanks.

The restoration of a silted tank will be relatively cheap if tank banks are raised instead of desilting the bed.

Restoration Of Old Tanks

It is important that proper standards are laid down for restoration of tanks with different irrigation capabilities.

Surface Water Lift Irrigation

At quite a few places, large pumping installations have been arranged at great cost without satisfactory arrangements for conveying rather large quantities of pumped water. It would be desirable to discourage large installations and thereby avoid over-capitalisation. As an alternative, it would be desirable to attempt a large number of small installations.

Kuhls In Hilly Areas

It is advisable to take care of the flow from all intervening drainage by providing suitable covers on the Kuhls at suitable points.

Groundwater Utilisation

It would be desirable for the States to organise their own exploration with whatever drilling equipment they have with them.

Construction Of Open Masonry Wells

In the future construction of wells, care should be taken to see that the wells are not constructed too close and special steps taken to stop the retrogression in the nullahs.

Choice Of Pump Sets

It is important that the performance of the pump set is estimated on the de-rated horse power instead of the usual figure that is meant for a few hours' running.

Filter Points

Instead of driving the filter it is installed in a bore hole, the yield of water at the filter point would be improved.

Artesian Wells

Steps should be taken both by Madras and Andhra States to regulate the construction of artesian wells.

Tube Wells

For successful running of tubewells an assured source of power must be arranged. Steps should also be taken for introducing a pattern for intensive cultivation so that the tubewells are kept running all the year round.

Paddy cultivation in tube well command is not very congenial to successful tube well running.

Improvement Of Water Supplies On Wells

Cheapest manner of arranging new irrigation could be to tackle the existing wells for improved water supplies.

Power For Water Lifting

In the interest of lift irrigation, it is desirable that a definite allocation is made on all power schemes for use on agricultural pumping, at reasonable rates. Steps should also be taken to avoid wasteful installations so that electrical generation arrangement is put to maximum work. The Agricultural and Electrical Experts in the States should also scrutinise proposals before sanctioning finances for pumping set installations.

Water Distribution Channels

The water distribution system deserves as much attention as the main work. It would be desirable to leave the construction of small length channels to the beneficiaries as practised in Mysore and Madras.

Spray Irrigation

It may not be economically feasible for general use but it has its advantages when the water source is in limited quantity.

Bund Construction

Large scale construction by the local cultivators could be organised on the lines done in Sholapur and Poona districts of Bombay State.

Steps For Accelerated Construction

Sanction for the construction and the funds for payment should reach the field officers well in advance of the slack season. It is also desirable to sanction works in any area after taking into account the available labour strength and their maximum turn-out during the slack months.

Popular Contribution

Government should initially make available the entire required outlay and recover the local people's contribution in instalments.

Sanction Of Subsidy

It has been possible in Bihar to encourage the construction of a large number of works with the limited

finances made available to them. The State does not ask for finances for the loan part and merely offers payments of the subsidy portion either in one lot on the completion of the work or in phased payments on partial completion. Other States can follow this example.

Record Of Completed Works

All completed works should be brought on record.

Legislative Enactments

The States of Madhya Pradesh, Madras, Andhra Pradesh, Mysore, Kerala and Bombay have already passed Acts and the remaining States should consider legislation on their lines.

Finances For Maintenance

In order to encourage maintenance, a levy on the entire irrigable area is imposed in the States of Mysore, Madhya Pradesh and Madras. The remaining States may also adopt a similar system.

Organisation For Maintenance

The States should recruit technical men with previous experience for looking after normal repairs and for special repairs the State PWD should take care. The maintenance responsibility of tanks with irrigation capability lower than 50 acres should be left to local organisations e.g., Panchayats, Gaon Sabhas, etc.

Shortage Of Technical Personnel

Shortages could be partially met by recruitment of Surveyors as Overseers. Local people with talent could also be utilised as Surveyors.

Assessment Of Irrigation Benefit

All States should arrange for random survey through an independent organisation like the statistical section at Bombay, Madras and Andhra Pradesh for assessing the benefit.

In Madras and Andhra Pradesh, the entire irrigable area is subject to a wet assessment. This is a good incentive for beneficiaries to take full advantage of the irrigation water. Other States, particularly Orissa, West Bengal and Bihar should examine the possibility of adopting this method.

Surface Water Diversion

A few completed diversion schemes have not fulfilled their irrigation targets because of insufficient water supplies being available at the end of the monsoon and towards the beginning of the cold weather. For assured irrigation benefit, it is desirable that the minimum flow of the streams and its duration should invariably be ascertained specially on streams that are flashy and whose discharge widely fluctuates.

At several places in Bihar and on bandharas in Bombay, there has been the age-old practice of putting temporary embankments across the streams every year. These embankments are washed away by the first floods in the following monsoon. Quite a large number of these embankments are being rapidly replaced by pucca masonry constructions. For a lasting benefit from these works, it will be desirable to attend to the marginal bunds along the flanks of the newly constructed weirs. Unless the bunds are satisfactorily completed and adequate length of water channels are dug, full benefit cannot be derived from the completed works.

Before deciding upon the masonry construction of a weir, it would be desirable to study the use that the upstream water is already being put to. Such study may bring out the advantages of combining two or more weirs at one place.

Similarly in the lay-out of the projected water distribution system, existing alignments be examined to explore the possibilities of an integrated lay-out. On Sakhri and Kumri Irrigation schemes in Bihar, this has been done for the benefit of larger area. Bihar and Bombay may have more instances where this could be profitably carried out. Other States may consider the suggestion while deciding upon the pucca construction of old weirs.

Surface Water Storage

Extensive investigations are being carried out with a view to locating all feasible sites for significant storage on major and medium schemes. Possibilities of small storage should, therefore, not be many. In several situations particularly those in the hilly and undulating regions covered by the Aravalli, the Satpura, Chhota Nagpur in the Vindhya and similar tracts in Western and Eastern Ghats, it may however be desirable to have small storage in order to avoid costly construction of long water channels over rolling country. This may be of particular utility in looking after the irrigation of small patches of cultivation in such tracts. All the head water regions of the streams need, therefore, be examined for locating minor irrigation tanks. This is for the consideration of States of Bombay, Madhya Pradesh, Bihar, Andhra Pradesh and Orissa.

For an economic design of the storage schemes, basic hydrological data of flood discharge, minimum flow, coefficients of yield and run-off need be determined. Such observations may have to be initiated in the areas of the former States of Saurashtra, Madhya Pradesh and Vindhya Pradesh where observation gauges on streams may have to be set up at large number of places.

For storages that are proposed in relatively drier parts of the country, the water yield from single catchment will have to be increasingly supplemented by diversion of flow from adjoining catchments. Thus

may be examined in the State of Rajasthan and for the area of the former Kutch State.

Chain System Of Tank Irrigation

In States of Mysore, former Hyderabad and in Satara District of Bombay, chain system of tank irrigation has been in vogue. In a valley, series of tanks are completed so that the surplus water from upstream tank is stored in the tank lower down. Maximum utilisation of water is thus aimed. The State of Madhya Pradesh and Orissa may examine possibilities of setting up similar chain systems of tank irrigation.

In a chain system of tank irrigation, it is important that adequate surplusing arrangements are provided particularly on the downstream tanks so that if any tank breaches, the tanks situated lower down are saved.

Surplusing Arrangement On Tanks

Every tank has to be designed for passing the flood discharge from the catchment. The flood discharge has to be carefully computed. Generally, it is determined from Dicken's formula, namely:

$$Q = CM^{\frac{2}{3}}$$

where 'Q' is the discharge in cusecs, 'M' is the sq. miles of catchment area and 'C' is the constant depending on the nature of the catchment. The value of 'C' is variable for different types of catchment and can be best determined by actual hydrological observations. If these are carefully taken and the value of 'C' accurately determined, an economic design for surplusing can be decided.

Good portions of States like Mysore, former Hyderabad and Saurashtra are frequented by strong cyclones resulting in heavy downpour either in the beginning or at the end of the monsoon period. Such cyclones require liberal provision for flood surplusing. Cyclones are, however, known to have different paths. It may be desirable to ask the Meteorological Department to mark out the particular path that the cyclonic storms usually take. Ample capacity for flood surplusing need be provided on tanks that are constructed in the areas frequented by cyclones.

Evaporation Losses On Tanks

On water spreads in arid regions of Rajasthan and of former Kutch, appreciable evaporation losses have been noticed. It would be desirable to decide construction of such tanks that are deep and have lower area of water spread, so that evaporation losses are minimised.

On tanks in such areas, it may be desirable to utilise the entire storage in rabi without attempting to carry over supplies to the following kharif.

Silting Of Tanks

Appreciable silting of tanks is reported in States of

Madras, Kerala, Rajasthan and former Kutch. Tanks in Madhya Pradesh, former Vindhya Pradesh and Hyderabad do not seem to have much of silting problem. In States where appreciable silting of tanks is observed, it would be desirable to provide initially for extra storage capacity. This will, however, have to be determined from studies that should be carried out of silt deposits on the tanks.

It may be advisable to discourage cultivation in tank beds. Also take special care of the fore-shore area as necessary in order to reduce the silting of tanks.

The restoration of a silted tank will be relatively cheap if tanks are raised instead of desilting the bed. Raising of banks will however submerge additional area. It could be adopted only where the damage, due to submergence, is not very appreciable.

Restoration Of Old Tanks

The work of restoration generally consists of :

- (a) Strengthening or raising the banks ;
- (b) Improving the surplusing capacity of the tank : and
- (c) Occasionally desilting the bed.

It is important that proper standards are laid down for restoration of tanks with different irrigation capabilities. Such standards would be of good guidance to the skeleton staff that has so far been possible to post to this important work. The States of Madras, Andhra and Mysore have already decided the standards for a large percentage of tanks in their States. Other States of Madhya Pradesh, Orissa and former Hyderabad need urgently lay down standards for the guidance of staff engaged on this work.

Surface Water Lift Irrigation

Attempts at lift irrigation have not so far been found economical. Main reason is commonly the non-availability of cheap power. At quite a few places, large pumping installations have been arranged at great cost without satisfactory arrangements for conveying rather large quantities of pumped water. It would be desirable to discourage large installations and thereby avoid over-capitalisation. This should be particularly important, as construction of large channels is not popular among cultivators with small holdings. As an alternative, it would be advisable to attempt a large number of small installations. Cultivators with small holdings will possibly find these more handy, as a lengthy construction of water channels would not be required and also heavy initial outlay would not be needed. The size of each installation would be decided on the extent of the area intended for irrigation. This would again depend upon the willingness of the cultivator to complete water channels.

Kuhls In Hilly Areas

A small minor irrigation arrangement has to be made for the small patches of cultivation in hilly districts of Punjab, former PEPSU, Himachal Pradesh, and Jammu & Kashmir. As most of the streams are snowfed, some water supplies are observed all the year round. Irrigation channels that are taken out by diverting the stream flow are commonly called 'Kuhls'. For the benefit of small areas, only diversion need be arranged. Not many storages have been felt necessary. It is however, important that minimum stream flow is observed, so that irrigation potentiality is accurately determined.

Usually, the water channels have to pass through porous soil. Hence, the seepage losses are appreciable. Lining of channels may have consequently to be done at good many places. The relative economics of a lined channel has to be compared with that of an unlined channel, on which frequent vertical falls may have to be provided. Each case can be decided on its merits, but it is important that this relative analysis is done in all cases before the construction of channel is undertaken. Of course, the low maintenance cost of a lined channel should also be taken into account.

For uninterrupted running of Kuhls, it is important to protect it from land-slides. Unless this is done, Kuhls will quite frequently get choked and inundated. It is, therefore, advisable to take care of the flow from all intervening drainages by providing suitable covers on the Kuhls at such points.

Ground Water Utilisation

Use of ground water has an important contribution towards irrigation development in the country. Nearly 30 per cent of the total irrigation in the country is from ground water. Among the minor irrigation schemes, ground water utilisation is responsible for over 50 per cent of the total irrigation. In the First Plan, construction of wells, tubewells and installation of water lifting appliances was encouraged. Search for new areas of ground water potentiality has been undertaken under the all-India Ground Water Exploration Project. This is primarily for locating tracts where State tube well irrigation could be introduced as a State enterprise. On the completion of this Project, it is proposed to continue exploratory drilling under a Second Ground Water Exploration Project. This project is aimed at locating areas with smaller ground water potentiality which though not sufficient for State tube well irrigation may be considered adequate for ground water utilisation by individuals or Cooperatives. As the unexplored areas are numerous and the Ground Water Project may not be able to expeditiously cover all areas, it would be desirable for the State to organise their own exploration with whatever drilling equipment they have with them.

Construction Of Open Masonry Wells

Construction of open wells is the most popular use of sub-surface water. Not many new areas with ground water potentiality have, however, been opened ; hence there is a tendency to overdraw on proven tracts. It was observed in Rajasthan and Bombay that fragmentation of family holdings has been responsible for the construction of increasing number of wells. New wells have even interfered and in some cases depleted the water supplies on existing wells. Wells are also getting into disuse in Bombay because of little care having so far been taken to protect the sources of water replenishment. Soil erosion in the nullah beds is one of the main reasons for a large number of wells getting into disuse in Bombay. In the future construction of wells, care should therefore be taken to see that the wells are not constructed too close and special steps should be taken to stop the retrogression in the nullahs.

Choice Of Pump Sets

In specifying pump sets, certain features have to be kept in mind. The pump set should not have a suction lift of more than 15 feet. This is important because with higher suction lift the efficiency sharply declines. In the choice of diesel engines for running pumps, the rating of the engine for continuous running should be ascertained. Normally, the specified horse power is for running the engines for a few hours. Only half of this horse power can be depended upon for continuous running. It is important that the performance of the pump set is estimated on the derated horse power instead of the usual figure that is meant for a few hours' running.

Filter Points

In the coastal areas of Madras, Andhra Pradesh and Kerala, ground water utilisation has been in vogue through the construction of filter points. These have been popular at places where the water table is not very deep and the ground water supply is plentiful, so that pumped water table is not deeper than the suction range of the pumping sets installed at ground level. Commonly, the filter point is completed by driving the filter. This is likely to compress the sands of sub stratum and thereby reduce its water permeability. If instead of driving the filter it is installed in a borehole, the yield of water at the filter point would be improved.

Artesian Wells

In the West Godavari District of Andhra Pradesh and South Arcot District in Madras, artesian wells have been located and tapped by drilling with four-inch and six-inch pipes. Their discharges have, however, declined mainly because:

(a) Unregulated tappings—too near each other, have been done with the result that the water supplies have

been interfered with;

- (b) The pipes have got choked; and
- (c) Water under pressure of the artesian aquifer has taken to easy flow into the top strata.

Steps need be taken both by Madras and Andhra States to regulate the construction of artesian wells. Improved design would avoid (c) stated above.

Tube Wells

In tracts where gravity flow irrigation is not possible, it is advisable to take recourse to tube wells if the tract is ground water worthy. For successful running of tube wells, however, an assured source of power must be arranged. In addition, steps for introducing a pattern for intensive cultivation need be taken, so that the tube wells are kept running all-the-year-round.

Paddy cultivation in tube well command is not very congenial to successful tubewell running. It concentrates the water requirement to a short period with the result that the tube well command has to be curtailed to a smaller area. This does not offer a varied use for the tube well water.

Improvement Of Water Supplies In Wells

Cheapest manner of arranging new irrigation could be to tackle the existing wells for improved water supplies. Boring could be done in wells situated in alluvial tracts. Where the wells are resting on rocky tracts, their deepening by blasting the rock may increase the storage capacity and in addition tap new fissures for larger water supply. Several States have attempted this work but good progress has only been possible where sufficient work has been organised on sufficient number of wells in a compact block. Handling of scattered wells is very expensive and time consuming. States of Madhya Pradesh, Bombay and Rajasthan need organise these operations for improved turn-out.

Recharge Of Ground Water

Improvements in ground water recharge can be effected by the construction of percolation tanks and weirs. So far, these have not been encouraged because they are incapable of bringing about direct irrigation benefit. Their importance has, however, been recognised in a small way by the construction of Rapats in Ajmer. Importance of works that can suitably recharge the ground water should be of foremost concern to dry areas of Bombay including portions of Kutch and Saurashtra. It is suggested that observations may be carried out for assessing the area of ground water replenishment that water conservation measures, like the construction of percolation tanks and weirs, can actually bring about.

Power For Water Lifting

The ground water use is likely to get more in vogue if adequate arrangements are made for water lifting.

Electric power should be increasingly available with the completion of multi-purpose projects and rural electrification schemes. In the interest of lift irrigation, it would however be desirable that a definite allocation is made on all power schemes for use on agricultural pumping. All States need be asked for the steps they take in getting positive allocation of power at reasonable rates for agricultural pumping. In the past, States like Bihar, Hyderabad and Saurashtra did not have sufficient power to encourage agricultural pumping. Their rates were also high.

While availability of power is thus arranged, steps need also be taken to avoid wasteful installations, so that electrical generation arrangement is put to maximum work. In Mysore and Madhya Pradesh, several pumping installations have a higher horse power than necessary. At present, these pumping sets are running for fewer hours. With a lower horse power meter, the same irrigation benefit can be brought about by running the sets for longer hours. The owners prefer a higher horse power that need only run for fewer hours possibly because of labour difficulty. This is uneconomical for the electrical supply, as the non-agricultural consumers can make a fuller and more continuous use of electricity. For a more assured use of electric supply, the initial scrutiny of proposals need include consultations with the Agricultural and Electrical Experts in the State before sanctioning finances for pumping set installations.

Water Distribution Channels

While irrigation works were quickly completed for tapping available surface water, not all the desired attention has been paid to adequate conveyance of harnessed water supply. No irrigation benefit can accrue unless the harnessed water is distributed systematically to the fields. The water distribution system, therefore, deserves as much attention as the main work. Some of the States like old Hyderabad and even Bombay have entrusted the construction of water channels upto three cusecs carrying capacity, i.e., for as big areas as 200 acres, to local people. Because of lack of cooperation and non-availability of vacant land etc. channels have not been completed with the result that water is not reaching to all portions of the command that was originally projected. It would be desirable to leave the construction of only such small length of the channels to the beneficiaries as would be required for say 25 acres of irrigation. This practice has been successful in the States of Mysore and Madras, and is recommended for other States as well. It may be a good scheme to have the water courses constructed by the beneficiaries in advance of the actual execution of the works.

Spray Irrigation

Because of initial heavy outlay on equipment and

recurring cost of pumping, spray irrigation may not be economically feasible for general use. It may, however, be economical to operate it in hilly parts at places where the hydrostatic head may even do away with pumping. Spray irrigation has its advantages when the water available is in limited quantity.

Bund Construction

In areas that have heavier texture of soil and where repeated application of irrigation water is likely to require special drainage arrangements it may be advisable to examine the extent to which construction of bunds could encourage cultivation. Bund construction may be popular if, in addition to heavier soil texture, the area is frequented by more rains during the later part of the monsoon. The construction of bunds would encourage conservation of moisture due to late rainfall in the heavier texture of the soil and thereby create favourable conditions for satisfactory growing of winter crop. Bund construction is not likely to be successful in tracts where the soil is light and the rainfall is heavy in the early part of the monsoon. Experiments are being conducted at Bellary in Andhra Pradesh for evolving satisfactory designs that could be adopted in the section of the bunds that are made with the heavy type of earth. Large-scale construction by the local cultivators could be organised on the lines done in Sholapur and Poona Districts of Bombay.

Steps For Accelerated Construction

Minor irrigation constructions aim at maximum utilisation of local resources and talent. As most of the constructions are planned in cultivated areas, the local labour and resource can best be available for the construction of minor irrigation schemes only during slack periods of agricultural activity. In certain parts of Rajasthan and North Bombay, construction works can perhaps be in full swing only after the first rain shower. Any construction that does not take full advantage of this slack period in agricultural activity will have to necessarily wait for the next season. It is for this reason that progress on minor irrigation works has been protracted for more than a year even though they are capable of being finished within a few months of concerted activity. In order that maximum use is made of the availability of labour in this period, it is very important that sanction for the construction and funds for payment reach the field officers well in advance of this slack season.

Some cases of protracted construction were noticed in Orissa and Hyderabad. Other States may have similar experience. There appears good scope for all States looking into and organising such procedure that would convey the sanction of works and funds to the field officers well in time for maximum construction progress during the slack period of agricultural activity.

In addition to improving the procedure for sanction of works and funds, it would also be advisable to take an account of the labour availability in the area. In fact, a prior census of labour would be extremely helpful in organising works. Labour does not find it convenient to leave their villages for construction works that are beyond five miles radius. It would therefore, be desirable to sanction works in any area after taking account of the available labour strength and their maximum turnout during the months of slack agricultural activity.

Popular Contribution

The most outstanding use of local resource and talent is evident on the commendable progress made in the construction of individually owned works like wells, installation of pumping appliances, etc. On group works, the contribution has been significant only in day areas where usefulness of irrigation is firmly established. Contribution in cash has been more popular than the offer of labour. This is generally true on works that are taken up in tracts that are already developed. In backward areas, people are too poor to pay in cash at the start of the work. On the construction of contour bunds in Sholapur and Poona Districts of Bombay, local labour has worked on payment of lower wages. Popular contribution has been relatively more for the construction of new works that are undertaken consequent to the initial suggestion of the local people. On restoration works, the popular contribution is generally feeble, as the people either expected the old landlords or the Government to restore the existing works. In Bombay, the State has been consistently insisting on a prior popular contribution before the Government part of the finances could be made available for starting the constructions. This has not been very popular and has frequently resulted in very poor progress of minor irrigation constructions. In the case of backward areas, it can be explained by the inability of the cultivators to muster up the necessary funds. It should, therefore, be desirable for the Government to initially make available the entire required outlay and recover the local people's contribution in instalments that would offer the beneficiaries a chance to improve their irrigated agriculture.

Sanction Of Subsidy

On individual works like wells, pumping sets, filter points, the GMF Rules permit subsidy being offered to the extent of 25 per cent which, in the case of backward areas, is permitted even upto 50 per cent. The total subsidy is equally shared between the State and the Centre. Balance amount required for completing the works is being offered as loan. The State of Bihar, however, does not ask finances for the loan part and has been merely offering payments of the subsidy portion either in one lot on the completion of the work or in phased

payments on partial completion. In this manner it has been possible in Bihar to encourage the construction of a large number of works with the limited finances made available to the State. Other States may examine the possibilities of adopting similar practice as is prevalent in Bihar.

Record Of Completed Works

All completed works should be brought on record, so that their behaviour is regularly watched.

Estimates of works should be closed on completion, and further repairs should not be a charge on the initial finances.

Initial outlay on all individual works should be recorded, so that any later requirement of funds for repairs could be judged on the merits of earlier expenditure.

Legislative Enactments

Legislative enactments are necessary for authority to (a) enforce certain standards of maintenance and in case of lapses to take over the work and recover the expenditure incurred in its restoration; (b) provide penalties being imposed on those who interfere in systematic utilisation of water resources, and (c) declare a commanded area under irrigation work as compulsorily assessed and thereby making irrigation obligatory.

The States of Madhya Pradesh, Madras, Andhra Pradesh, Mysore, Kerala and Bombay have already passed Acts which provide for the above three clauses. Remaining States had better consider legislation on these lines. Clause (c) is worth serious consideration of States like Bihar, West Bengal and Orissa which have a higher annual rainfall. Because of high order of rainfall, water supplies on even minor irrigation schemes can be depended upon. It should, therefore, be possible to demarcate the irrigable area. Compulsory assessment on the other hand would stimulate irrigation and ensure satisfactory maintenance.

Having passed the Acts, all States do not seem to have enforced the provisions of clause (a) for ensuring adequate maintenance by the beneficiaries.

Care should, however, be taken to avoid what has happened in the case of a large number of breached tanks in Hyderabad. Irrigable area on all tanks was assessed at a uniform rate, but the beneficiaries were permitted a remission in their dues in case the water supplies from the tanks become uncertain. The beneficiaries have, in quite a large number of cases, taken advantage of this provision and have got the water supply from these tanks declared as "uncertain" even though it was within their capability to restore the breaches by doing some earthwork.

Finances For Maintenance

Individually owned works like those of wells, pump-

ing sets, etc. will be looked after by the owners. Similarly, works that are constructed and maintained by a small group of cultivators would not require much finances for maintenance. This is particularly true of dry areas where the use of irrigation is fully recognised by the cultivators. There are, however, large number of works which have been restored by Government and whose maintenance thereafter has been entrusted to the beneficiaries. In order to encourage their maintenance, a levy on entire irrigable area is imposed. This practice is in vogue in the States of Mysore, Madhya Pradesh, Madras. The remaining States need impose similar levy.

Under a third category of works are those that have been restored by Government and are being maintained by them. Here again, the entire irrigable area should have a regular charge to defray the annual maintenance expenditure and for special repairs. Madras, Andhra Pradesh, Mysore, Hyderabad, and Bombay have arranged maintenance through Governmental agency on works that have sizable irrigation capability varying from 200 acres in Madras and Andhra Pradesh to 100 acres in Bombay.

Organisation For Maintenance

Minor irrigation works costing upto Rs. 10 lakhs are of different sizes. Starting from individual works like wells, pumping sets and filter points, there are small irrigation works of significant size. Some of the works are capable of looking after even 10,000 acres of irrigation. These require proper technical supervision in their maintenance. Such works are invariably in the charge of Engineering Department in the State. While Madras and Andhra Pradesh include in this category works that irrigate upto 200 acres, Bombay has kept it at 100 acres. For even smaller works in Mysore, the State P.W.D. is responsible, though Madras, Andhra Pradesh and Bombay entrust their Revenue or Community Development Department the responsibility for maintenance of such small works. These Departments are not, in all States, staffed with technical hands. It is desirable that these States recruit technical men with previous experience for looking after the normal repairs. For special repairs, the Public Works Department in the State need be consulted. It was also observed that special repairs have been felt necessary once in five years.

The maintenance responsibility of tanks with irrigation capability lower than 50 acres could be entrusted to local organisations like Panchayats, Gaon Sabhas etc. In States like Bihar, Bengal and Orissa where the irrigation works are only for supplemental use, the local

people may not initially be alive to this responsibility. Consequently, Governmental set up will have to be more watchful till the irrigation benefits are finally established and grow into a recurring use.

Shortage Of Technical Personnel

Shortage of junior staff has been felt invariably by all the States. States like Himachal Pradesh, Tripura and Manipur which are isolated and have got difficult terrain have not been able to attract qualified hands from outside. Even those who join, very soon leave the assignment with the result that important levelling for initial survey and estimating has been sadly neglected. Work of levelling forms a major portion of the duties expected of subordinates. This shortage could perhaps partially be met with by recruitment of surveyors who are well up in levelling even though they have not got all the qualifications that make up an Overseer. The States may start training classes for a short-term course of, say, six months which would primarily be for training the hands in the work of levelling. Local people familiar with the area and with aptitude for cross-country work could be trained and thereafter employed as Surveyors. This may relieve the shortage of technical subordinates specially in the States like Himaehal Pradesh, Manipur and Tripura.

Assessment Of Irrigation Benefit

Irrigation benefit on most of the schemes is at present being reported on the basis of the initial forecast. Actual figures of irrigation have so far been collected only for works that the Irrigation or Public Works Department in the State have under their control. On other works (particularly in States like Orissa, West Bengal and Bihar) no systematic measurement of benefit has been undertaken. In U.P., Bombay, Madras and Andhra Pradesh, the irrigation benefit comes under review in the normal routine of the Revenue staff during their assessment of agricultural cropping. While Orissa, West Bengal and Bihar need organise regular measurement of irrigation benefit in addition, it appears desirable for all States to arrange for random survey through an independent organisation like the Statistical Section of Bombay, Madras and Andhra.

In Madras and Andhra Pradesh, the entire irrigable area is subject to a wet assessment. This is a good incentive for beneficiaries to take full advantage of the irrigation water. It is suggested that other States particularly Orissa, West Bengal and Bihar may also examine the possibility of adopting this method.

STUDY GROUP ON SOCIAL SECURITY, 1957—REPORT

New Delhi, Ministry of Labour and Employment, 1958. 98p.

Chairman : Shri V.K.R. Menon.

Members : Colonel V.M. Albuquerque; Shri S.N. Mubayi; Shri B.N. Datar; Shri S. Krishnamurty.

Secretary : Shri K.K. Bhargava (died; replaced by Shri S.P. Jain).

APPOINTMENT

In pursuance of one of the recommendations on labour policy in the Second Five-Year Plan, the Government of India, Ministry of Labour and Employment, set up this Committee vide their Order No. L and E-3(5)/57, dated August 3, 1957.

TERMS OF REFERENCE

(a) Examine the experience gained by the working of existing social security schemes;

(b) Study how these schemes and any other privileges given to workers could be combined in a comprehensive social security scheme;

(c) Work out the administrative details of such an integrated scheme;

(d) Examine whether, without any appreciable increase in the total liability of employers and workers, additional advantages can be given to the working class; and

(e) Examine and make recommendations regarding conversion, wholly or partly of the present provident funds into suitable pension schemes as envisaged in the Second Five-Year Plan.

CONTENTS

Introduction; Conclusions and Recommendations; Achievements and Criticisms of Existing Schemes, Feasibility of an Integrated Scheme; The Scheme, Conclusion; Appendices I to IV.

RECOMMENDATIONS

Under existing conditions, any large extension of social security measures will not be possible either in terms of coverage or actual benefits. The aim should be to improve upon existing measures and to simplify administrative procedure, restricting additional financial levy for the time being, to what is required for this limited purpose.

(a) Existing enactments providing for some form of social security or social insurance in the accepted sense are:

	Act	Contingencies Provided For
(i)	Employees' State Insurance Act.	Medical care and treatment, sickness benefits, maternity benefits, employment injury including invalidity and dependants' pensions where death arises as a result of employment injury.
(ii)	Employees' Provident Funds Act, Coal Mines Provident Fund and Bonus Schemes Act and Assam Tea Plantations Provident Fund Scheme Act. (The scheme of old age pensions introduced in the Uttar Pradesh is left out of account for present purposes.)	Old age or death while still in service.
(iii)	Coal Mines Labour Medical Care and Treatment, Welfare Fund Act, and Mica Mines Labour Welfare Fund Act.	

Existing enactments providing for relief in certain contingencies but which are not measures of social security in the accepted sense as the liability in each case is placed directly on the individual employers:

	Act	Contingencies Provided For
(i)	Workmen's compensation Act.	Compensation in the form of single lump sum payments in case of permanent disability or death resulting therefrom and periodical payments in case of temporary disability.
(ii)	Plantations Labour Act.	Medical care and treatment, sickness benefits, maternity benefits.
(iii)	Maternity Benefit Acts of State Governments and Mines Maternity Benefit Act.	Maternity benefits.

Act	Contingencies Provided For
(iv) Industrial Disputes Payments in cases of retrenchment and lay-off—a form of limited unemployment relief.	

One single agency should be set up—hereinafter referred to as the Organisation—which should as a first step assume administrative responsibility for the enactments mentioned on items (i) and (ii)(a) above. In case of workers covered by both the Employees' State Insurance Act and one of the Provident Fund Acts, employers will pay to this Organisation in one single payment, the contributions due under both. Inspectorate and supervisory staff will be unified. These and other consequential measures will aim at simplification and added convenience to both parties—employers and workers.

The coverage under items (i) and (ii) under (a) are not identical but the advantages of setting up the Organisation still exist. It should, however, be the aim to make the coverage under the two enactments identical as far as practicable and in stages by a prescribed target date. As one step towards facilitating this, action should be taken to delete the provision in the E.P.F. Act under which newly established factories are exempted from its provisions for the first three years. The deletion of this provision is necessary for another reason as well.

The present arrangements in respect of item (iii) under (a) by which the respective Welfare Funds are responsible for medical care and treatment of workers in coal and mica mines is working satisfactorily and should continue.

The quantum of cash benefits at present granted under the E.S.I. Act should be augmented as follows:

(i) Sickness benefit should be payable upto a maximum period of 13 weeks in any three benefit periods of 26 or 27 weeks each.

(ii) Extended sickness benefit, at full normal benefit rate may be granted in case of tuberculosis, or other prescribed long term diseases for a further period of 39 weeks but only to such persons as have completed at least two years of qualifying service.

(iii) The maternity benefit rate should be raised so as to be equal to the full average wage of the insured woman and subject to a minimum of Re. one per day.

There is considerable scope for improving the standard of medical care and treatment for workers covered by the E.S.I. Act. The provision of medical care and treatment (including hospitalisation) for families of workers is urgently needed as it is this omission that has brought in the largest and quite legitimate criticism from organisations of workers and individual workers themselves. All these improvements could be provided only if substantial additional funds are available. For this purpose, the levy on employers should be increased

to the maximum that the law already provides for. The justification which existed for levying contributions at lesser rates has, with the considerable extension of the scheme, lost much of its force. The standard of medical care and treatment should be greatly improved and the scope extended to cover families. In fact, a beginning has already been made in this direction.

The enactments relating to Provident Funds have proved a real boon to workers covered thereby, in the form of provision for old age. But payment in lump sum has obvious disadvantages compared with a regular pension scheme. The time is ripe for converting the Provident Funds into a Statutory Pension Scheme to be administered by the organisation. A scheme of Old Age, Invalidity and Survivorship Pension-cum-Gratuity is recommended for adoption. This involves payment of a small gratuity sufficient to meet immediate needs and using the rest of the resources towards giving the maximum pensionary benefits. Though the Assam Tea Plantations Provident Fund Act is an Act of the State Legislature, it is hoped that it would be merged in the new Scheme. Otherwise, the workers in plantations in Assam would be deprived of a valuable benefit.

To provide pensions of reasonable amounts, the resources should be augmented by:

(a) Increasing the present rate of contributions of workers and employers to Provident Fund from 6-1/4 per cent to 8-1/3 per cent.

(b) While the statutory amendments and administrative arrangements required for the conversion into a Pension Scheme will take time, the increase of Provident Fund contributions (to 8-1/3 per cent) should be given immediate effect by amendment of the rules under the respective Acts. Delay in effecting the increase will adversely affect the insured workers as a year of contribution at the existing rate (6-1/4 per cent) will be taken as only nine months for reckoning length of service.

(i) Translated in terms of percentage contributions the recommendations regarding rates of contribution above imply that as a transitional arrangement rates for the three classes of factories may be laid down as follows:

(a) For factories, the employees of which would be eligible only to the benefits under the Employees' State Insurance Act, there will be no change. Their rates of contribution, when raised to the maximum that the law provides for, work out to about 4-2/3 per cent by employers and 2-1/3 per cent by employees.

(b) For factories, the employees of which would be eligible only to benefits under the proposed Scheme of Old-Age, Invalidity and Survivorship Pension-cum-Gratuity, their rates of contribution will be raised to 8-1/3 per cent by employers and 8-1/3 per cent by employees.

(c) For factories, the employees of which are covered

for the full range of benefits under the E.S.I. Act plus the proposed scheme of Old-Age, Invalidity, and Survivorship Pension-cum-Gratuity, their rates of contributions as under (a) and (b) above would work out to about 13 per cent by employers and 10-2/3 per cent by employees.

(ii) In addition, the employees will be liable to pay an administrative charge not exceeding 0.5 per cent of the total wage bill in cases under (b) and (c) above. No separate administrative charge will be leviable in cases under clause (a).

The Workmen's Compensation Act originally provided coverage for both workers in organised industry as also in several scattered employments. With the gradual extension of the E.S.I. Act more and more workers in organised industry will be governed by this Act. Several cases will still remain, particularly of scattered employments where the responsibility for payment of compensation will continue to rest with the individual employer concerned. A pension scheme can be adopted even in these residuary cases by requiring the employer to pay to the Organisation a lump sum amount and the Organisation then taking on the responsibility for making recurring pensionary payments to the injured worker or his dependants as the case may be. Steps should be taken to revise the relevant schedule to the Workmen's Compensation Act to increase the present scales of lump

sum payments to meet the cost of the new pensionary liabilities.

While the provisions in the Industrial Disputes Act relating to compensation on retrenchment and lay-off have afforded some relief and acted as some deterrent to hasty retrenchment, certain unsatisfactory features have nevertheless been revealed. The permanent remedy may be in the form of a scheme of unemployment benefit but a scheme of this type will not be practicable for sometime to come. Till then, improvements should rather be in the direction of avoiding closures—and consequent retrenchment, as far as possible, as, e.g., by creation of a fund through which industrial units in temporary difficulties can be assisted and kept running where such a course is in the interests of the workers and the public interests at large. This subject will be studied and a supplementary report submitted if Government so wishes.

Comparative studies made of some countries in Europe by the I.L.O. show that the employer's liability towards cost of social security measures for the workers—expressed as a percentage of the wages—is, in many cases higher than what the Group has recommended—this, inspite of the fact that adequate standards of medical care, hospitalisation etc. are provided in these countries by the State for the population as a whole including industrial workers.

COMMISSION OF INQUIRY ON EMOLUMENTS AND CONDITIONS OF SERVICE OF CENTRAL GOVERNMENT EMPLOYEES, 1957-59—REPORT

New Delhi, Ministry of Finance, 1959. 640p.+xiip.

Chairman : Shri Justice Jagannadha Das.

Members : Shri V.B. Gandhi; Shri N.K. Sidhanta; Shri M.L. Dantwala; Smt. Maragatham Chandrasckhar.

Associate-

Secretary : Shri H.F.B. Pais.

Secretary : Shri L.P. Singh.

APPOINTMENT

The Commission was appointed by the Ministry of Finance, under Resolution No. 2474-Secy.(E)/57, on August 21, 1957.

TERMS OF REFERENCE

The terms of reference of the Commission will be as follows:

IN INDIA 1957

(i) Examine the principles which should govern the structure of emoluments and conditions of service of the Central Government employees;

(ii) Consider and recommend what changes in the structure of emoluments and conditions of service of different classes of Central Government employees are desirable and feasible keeping in mind the considerations mentioned below;

(iii) Recommend, in particular, the extent to which benefits to Central Government employees can be given in the shape of amenities and facilities; and

(iv) In making their recommendations the Commission will take into account the historical background, the economic conditions in the country and the implications and requirements of developmental planning, and also the disparities in the standard of remuneration and

conditions of service of the Central Government employees on the one hand and of the employees of the State Governments, Local Bodies and aided institutions on the other, and all other relevant factors.

CONTENTS

Resolution; Part I—Introductory: Procedure of the Commission; Our Terms of Reference; General Description of Central Government Employees; **Part II—General Principles and Considerations:** Principles of Pay and Conditions of Service; Economic Conditions; Developmental Planning; Disparities Between Central Emoluments and those under State Governments, Local Bodies, etc.; Minimum Remuneration; Highest Salaries; Dearness Allowance; **Part III—Pay and Allowances:** Pay Scales; Headquarters Organisation of the Government of India; Office Staff outside the Secretariat; The Class I Central (Non-Technical) Services; Class II Services and Posts; Scientific Staffs; Engineering Staffs; Medical and Public Health Staffs; Economists and Statisticians; Class IV Staffs; Workshop Staffs; Some other Common Categories; Railways; Posts and Telegraphs Department; Civil Aviation Department; Central Board of Revenue; Audit and Accounts Departments; Ministry of Information and Broadcasting; Ministry of Defence; Government of India Presses; India Government Mints; Union Territories; Special Pay; Fixation of Pay in New Scales; Allowances; **Part IV—Conditions of Service, Amenities and Facilities, and Allied Matters:** Hours of Work; Weekly Off; Public Holidays; Overtime Allowance; Casual Leave and Special Casual Leave; Leave Entitlements; Age of Superannuation; Retirement Benefits; Medical Facilities; Housing Facilities; Educational Assistance; Uniforms; Protective Clothing etc.; Working Conditions; Canteen Facilities; Staff-Welfare; Leave Travel Concessions; Promotion and Character Rolls; Temporary Employees; Workcharged Staff, Casual Labour; Government Servants Conduct Rules; Political Rights; Right of Association; Machinery for Negotiation and Settlement of Dispute; Disciplinary Proceedings; Classification of Services; **Part V—Other Matters:** Efficiency in Public Service, Statistical Requirements; Cost of our Recommendations; Date of Effect of some of our Recommendations; Summary of Recommendations; Appendices I to V.

RECOMMENDATIONS

Principles Of Pay And Conditions Of Service

The structure of emoluments and conditions of service should be so designed as to ensure recruitment at different levels of persons with requisite qualifications and abilities and to keep them efficient.

The social position which a Government servant is traditionally expected to maintain should not in itself be a factor in the determination of his remuneration.

While the 'model employer' principle, as commonly understood, is not suitable for determination of remuneration, the social principles and standards which Government have laid down for, or commended, to employers generally should be taken into account. Further, in the matter of conditions of work and employment practices generally the Government may become the pace-setter—a model employer.

The minimum wage or salary should not be determined only on economic considerations, but should satisfy also social tests. Even above the minimum level Government should remunerate their employees fairly.

In the present circumstances, the principle of fair comparison with rates of remuneration in outside employment is not suitable for full and detailed application; but it is one of the important factors to be taken into account.

Once the demands of efficiency of the public service are satisfied, social considerations require limitation of disparities between the highest and the lowest salaries, and their reduction as far as possible.

With the minimum and maximum salaries having been determined on a combination of social and economic considerations, sound and equitable internal relativities constitute the most important single principle to be followed in the determination of the intermediate salaries.

Except in the broad sense of being an indicator of the level and the state of the economy, and thus of the resources which the Government can draw upon for their needs, the trend of national productivity cannot be accepted as a factor in itself relevant to the determination of salaries and wages of Government servants.

The level of consumer prices is among the factors relevant to the determination of rates of remuneration of Government servants.

Economic Conditions And Developmental Planning

Fluctuations in prices have occurred during the last twelve years, but the general trend, especially since 1955, has been upward. The growing tempo of investment in the economy and the relative shortage of foodgrains are the main factors responsible for the price increase.

Production and national income have increased over the last few years; the economic situation today is better and more promising than it was in 1947-48.

Indications are that there may not be a serious instability of prices in near future, but a slow rise of prices is likely; hence the need for caution.

There has been a growing shortage of internal resources needed for financing development plans. Rapid economic development requires restraint on consumption consistent, as far as possible, with the social objectives of planning.

Disparities Between Central Emoluments And Those Under State Governments, Local Bodies, Etc.

In the context of our constitutional structure the issue of disparities is a highly complex one, and tangled with other matters; it is not one that can be resolved in a simple way.

The suggestion that the Central Government employees posted in different States might be remunerated at the rates prescribed for the State employees, or, that, in the alternative, the dearness and other allowances alone might follow the State rates is not sound or feasible.

A scheme of recruitment to the non-gazetted posts under the Central Government by transfer of selected personnel from the appropriate services of the State Government may be considered.

The disparities should be regarded as a factor calling for restraint but not one that would justify the denial to the Central Government employees of the minimum improvement in remuneration which otherwise appears to be fair and desirable.

Minimum Remuneration

With the present magnitude of unemployment and under-employment in the country and the low levels of income, the present minimum of Rs. 75 is sufficient to attract recruits of the right type.

The present minimum remuneration of Rs. 75 in Central Government compares favourably with the average minimum rate in organised private industry.

A need-based minimum wage of the order of Rs. 125 per mensem proposed by the employees is not feasible economically and financially.

A diet capable of providing 2,600 calories and other nutrients of the requisite order would cost Rs. 52 per mensem for a family of three consumption units. Adding the requirements of clothing, housing, etc., a need-based minimum, permissible within the limits of the country's present output of foodstuffs would cost about Rs. 80.

With the Consumer Price Index at 116, a remuneration of Rs. 80 would restore the real income of employees on the lowest pay to the level at which it was fixed on the Varadachariar Commission's recommendations.

While it is necessary to keep inflationary pressures in check, a modest increase in minimum remuneration is called for on social considerations and in the interest of contentment of the staff. It is only as an element in an integrated economic and social policy that a sacrifice can reasonably be asked for from the lower grades of staff.

The minimum remuneration payable to a Central Government employee should be increased from Rs. 75 per mensem to Rs. 80 per mensem.

Highest Salaries

Keeping in view the necessity of maintaining a high

standard of recruitment to the superior services, and the erosion of the real income which has taken place, reduction of the salaries at present prescribed for the highest grades is not recommended.

Dearness Allowance

While an upward tendency in prices is likely to persist, the possibility of a fall in the price level cannot be ruled out in view of likely fluctuations in agricultural production and other possible causes. Dearness allowance should, therefore, continue as a separate element in the remuneration of Central Government employees. It should, however, be limited for the present to employees whose salaries are below Rs. 300 per mensem.

Judging from the recent trends in prices, the consumer price index (1949=100) is not likely to drop below 100. The basic salaries of the lower paid employees should, therefore, be fixed in terms of the requirements at an index level of 100. No downward adjustment in basic salaries should, however, be made even if the index falls to 90.

The entire remuneration of the higher paid employees should be in the form of salary with no separate dearness allowance.

In future adjustments of the dearness allowance to meet rise in prices, employees in the pay-range of Rs. 300 and above but below Rs. 400 should, however, be grouped with those in the pay-range below Rs. 300.

Should the consumer price index continue to rise, the case of employees in the pay-range of Rs. 400 and above but below Rs. 1,000 for grant of dearness allowance may be considered in the light of all the relevant circumstances at the time.

There should not be automatic adjustment of dearness allowance with the price index. A substantial and persistent rise in prices, however, normally creates a *prima facie* case for compensation and it should be the Government's endeavour not to allow the standard of living of their employees in the lower range, of remuneration to fall.

For the present, employees drawing pay below Rs. 300 per mensem may be granted dearness allowance at the following rates:

- (a) basic pay below Rs. 150 Rs. 10 per mensem
- (b) basic pay of Rs. 150 or

above but below Rs. 300 Rs. 20 per mensem

There should be marginal adjustments for employees drawing a basic pay of Rs. 300 or above but below Rs. 320.

These rates of dearness allowance should be taken as related to the consumer price index 115 (1949=100) and should continue unless the index falls below 100. If during a period of 12 months the index remains on an average, ten points above 115, the Government should review the position and consider whether an increase in

the allowance should be allowed, and if so, at what rate. If thereafter the index falls by the same margin, and for the same period, the position may be similarly reviewed and appropriate adjustments made.

The benefit of dearness allowance should, in future upward adjustments, be extended to all employees drawing a basic pay below Rs. 400 per month in such a way that the total of basic pay and dearness allowance paid to any employee in the pay-range of Rs. 300 to Rs. 400 does not exceed Rs. 400.

Pay Scales

On promotion to a higher post, upto and inclusive of those from the present Class II level to Class I, the pay of an employee should first be increased by one increment in the lower scale and then fixed in the higher scale at the stage next above. No distinction should be made for this purpose on the ground that the lower post was held in a quasi-permanent or temporary and not permanent capacity.

Selection grades without functional differentiation are necessary in certain cases in order to provide incentives to employees who have no outlets, or very limited outlets, for promotion to higher posts.

The following typical scales of pay are recommended for Class I, II and III services and posts:

Class I

	Rs.
<i>Supertime scales and fixed rates (Chapters XI, XIII, XV, XVI and XVII)</i>	3000
	2750
	2500
	2250
	2000—125—2250
	1800—100—2000—125—2250
	2000
	1800—100—2000
	1600—100—1800
	1300—60—1600—100—1800
	1100—50—1300—60—1600—100—1800
	1300—60—1600
	1100—50—1400

Time scales:

<i>Indian Foreign Service</i>	
Senior Scale	900—50—1300—1300—60—1600—100/2—1800
Junior Scale	400—400—500—40—700—30—1000
<i>Class I (non-technical) Services</i>	
	400—400—450—30—510—700—40—1100—50,2—1250

Scientific Services—

Senior Scale	700—50—1250
Junior Scale	400—40—800—50—950
<i>Engineering and some other Services—</i>	
Senior Scale	700—40—1100—50—1250
Junior Scale	400—400—450—30—600—35—950

Medical Services—

Senior Scale	850—45—1300—50—1400 (consolidated scale) or 675—35—850—40—1050—50—1150 plus non-practising allowance.
Junior Scale	575—25—600—30—750—1150 (consolidated scale) or 425—25—450—30—600—950 plus non-practising allowance.

Class II

Standard Scale	350—25—500—30—830—35—900
Accounts Department	590—30—830—35—900
Station Superintendents (Railways)	590—30—830—35—900
Medical Services	475—25—650—30—950 (consolidated) or 325—25—500—30—800 plus non-practising allowance
Programme Executives in All India Radio, Grade III of the Central Information Service, Stores Officers, etc.	350—25—500—30—800
Research Assistants/ Technical Assistants etc.	325—15—475—20—575
Assistants in the Central Secretariat	210—10—290—15—530

Class III

Clerical Staffs :

Supervisory Grade I	425—25—575
" " II	350—20—450—25—475
" " III	335—15—425
" " IV	210—10—290—15—390
Upper Division Clerk	130—5—160—8—250—10—300
	130—5—160—8—250
Lower Division Clerk	110—3—131—4—175—5—180

Stenographers . . .	320—15—530 210—10—290—15—425 150—5—160—8—280—10— 300 130—5—160—8—280—10— 300	Preventive Officers Grade II 150—5—160—8—280—10— 300
<i>Scientific Staffs :</i>		
Research Assistants/ Scientific Assistant/ Laboratory Assistant etc.	325—15—475—20—575 210—10—290—15—425 150—5—160—8—280—10— 300 (If 4 grades are retained) or 160—8—280—10—330 (If 3 grades are retained) 110—4—170—5—200	Deputy Superintendents 350—20—450—25—575 Inspectors (Selection Grade) 320—15—485 Inspectors (Ordinary Grade) 210—10—290—15—380 Supervisors . . . 110—4—170—5—180 Women Searchers . . . 130—4—170—5—225
<i>Engineering Staffs :</i>		
	450—25—575 335—15—485 335—15—425 250—10—290—15—380 205—7—240—8—280 180—180—205—7—240—8— 280 180—6—240 175—6—205—7—240 150—5—175—EB—6—205— 7—240 110—4—170—5—200 110—3—131—4—175—5— 180 with a special pay of Rs. 10 per mensem in some cases.	Assistant Superintendent of Post Offices and R.M.S. . . . 335—15—425 Inspectors of Post Offices and R.M.S. . . . 210—10—290—15—380 Wireless Operators 270—10—290—15—350 Repeater Station Assis- } tants - } (Selection Grade) 150—5—160—8—240—EB— 8—280—10—300 Telephone Inspectors . . . 150—5—160—8—240—EB— 8—280—10—300 Line Inspectors . . . 150—5—160—8—216 Mechanics, Cable Jointers 175—6—205—7—240 (Selection Grade) 110—3—131—4—155—EB— —4—175—5—180 Sub-Inspectors Telegraphs 105—3—135—EB—4—155 Head Postmen and allied categories . . . 135—4—155 (Selection Grade) 105—3—135 Postmen, Linemen, Mail Guards 75—1—85—EB—2—95
<i>Accounts Staff :</i>		
S.A.S. Accountants . . .	270—15—435—20—575	
Divisional Accountants	180—10—290—15—440	
<i>Revenue Staff :</i>		
Income Tax Department		
Income Tax Inspectors (Selection Grade, only if there is direct recruitment to Class II)	325—15—475—20—575	
Income Tax Inspectors (Ordinary Grade) . .	210—10—290—EB—15—485	
Notice Servers . . .	75—1—85—2—95	
<i>Customs Department :</i>		
Preventive Officers Grade I/	325—15—475—20—575	
Examiners (Selection Grade)		
Preventive Officers Grade I/Examiners	210—10—290—EB—15— 485	
<i>Railways :</i>		
Scales of pay and main categories under each scale :		
Chief Controller		
Head Ticket Collector		
Head Travelling Ticket Examiner		
Inspector (Commercial)		
Inspector (Loco)		
Inspector (Transporation)		
Station Superintendent/ Deputy Station Supdt.		
Yard Foreman		
Yard Master		

Deputy Chief Controller		Assistant Inspector (Commercial)
Head Ticket Collector		Assistant Inspector (Transportation)
Head Travelling Ticket Examiner		Assistant Station Master
Inspector (Commercial)	370—20—450—25—475	Assistant Yard Foreman
Inspector (Transportation)		Assistant Yard Master
Inspector (Loco)		Chief/Head Booking Clerk
Power Controller		Chief/Head Goods Clerk
Station Master		Chief/Head Luggage Clerk
Station Superintendent/ Deputy Station Supdt.		Conductor
Yard Foreman		Driver (Licensed—Marine)
Yard Master		Guard Grade A
Loco Inspector	335—15—485 (scale proposed if two exist- ing grades Rs. 260— 350 and Rs. 300—400 are grouped together)	Head Signaller
Power Controller		Head Trains Clerk
Chief Wireless Inspector		Motorman
Driver Grade A		Serang (Marine)
Head Ticket Collector		Station Master
Head Travelling Ticket Examiner		Wireless Inspector
Inspector (Commercial)	335—15—425	Yard Foreman
Inspector (Transportation)		Yard Master
Inspector (Loco)		Serang (Marine) . . .
Power Controller		Booking Clerk
Section Controller Grade I		Driver Grade C
Station Master		Goods Clerk
Yard Foreman		Luggage Clerk
Yard Master		Assistant Station Master
Section Controller . . .		Assistant Yard Foreman
Section Controller Grade II . . .	270—10—290—15—425 (if Grades I and II are amalgamated)	Assistant Yard Master
Assistant Yard Foreman		Booking Clerk
Assistant Yard Master		Conductor
Chief/Head Booking Clerk		Driver (First Class Certificate—Marine)
Chief/Head Goods Clerk		Goods Clerk
Chief/Head Luggage Clerk		Guard Grade B
Head Signaller	270—10—290—15—380	Head Signaller
Head Ticket Collector		Head Ticket Collector
Head Travelling Ticket Examiner		Head Travelling Ticket Examiner
Head Trains Clerk		Luggage Clerk
Inspector (Commercial)	250—10—290—15— 380	Station Master
Inspector (Transportation)		Trains Clerk
Station Master		Yard Foreman
Yard Foreman		Yard Master
Yard Master		Wireless Operator . . .
Driver Grade B . . .	210—10—290—15—320 —EB—15—380	Assistant Station Master
		Assistant Yard Foreman
		Assistant Yard Master
		Driver (Second Class Certificate—Marine).
		Guard Grade C
		Serang (Marine)

Yard Foreman	130—4—170—EB—5—200
Yard Master	—EB—5—225
Travelling Ticket Examiner	130—5—175—EB—6— 205—7—212
Shunter Grade A	130—4—170—EB—5— 200
Shunter Grade B	130—4—158
Fireman Grade A	125—3—131—4—155
Shunting Jamadar	
Booking Clerk	
Goods Clerk	{ 110—4—150—EB—4—170
Luggage Clerk	—5—180—EB—5—200
Signaller	
Ticket Collector	{ 110—3—131—4—155—
Trains Clerk	EB—4—175—5—180
Cabinman	
Shunting Jamadar	{ 110—3—125.
Brakesman	
Fireman Grade B	{ 100—3—130

Headquarters Organisation Of The Government Of India

The two grades of Section Officers should be amalgamated into a single grade carrying the standard Class II scale.

A slightly higher remuneration than that recommended would be justified for Lower Division Clerks if Government consider it necessary to have for the Secretariat a superior class of recruits even at that level.

Direct recruitment to the Upper Division grade should be stopped and promotion to a proportion of posts which are now being filled by direct recruitment should be made on the basis of a written examination conducted by the Public Service Commission.

Office Staffs Outside The Secretariat

Classification of offices into Attached and Subordinate offices should be made on a functional basis.

The Secretariat and Attached offices may be combined into a single headquarters organisation with a common 'office'.

Definite criteria should be laid down for determining as to what offices should be included in the Central Secretariat Service Scheme.

The question of direct recruitment above the level of Lower Division Clerk at the Armed Forces Headquarters should be examined.

The necessity for continuing the posts of Assistant-in-Charge should also be examined.

Posts of Upper Division Clerk now filled by direct recruitment should be filled by promotion on the basis of a limited competitive test, except where for any special reason a university degree is considered an essential qualification for the posts.

10 per cent of the posts of Lower Division Clerk should be in a selection grade in cadres in which the

proportion of promotion posts is less than 50 per cent, of the Lower Division posts.

There should be a selection grade for Upper Division Clerks in the Indian Audit and Accounts Department and the Defence Accounts Department.

In the Railways, Typists should not be retained as a separate cadre but should be merged in the general clerical cadre.

In the Railways the system of employing Clerks as Telephone Operators may continue, but the necessity for, and the rates of, special pay granted to them should be reviewed.

The arrangement for employing Upper Division Clerks on supervisory duties on their grade pay plus a special pay is not satisfactory; if the duties are fully supervisory it should be considered whether posts of Head Clerk should not be created.

Lower Division Clerks in non-Secretariat offices may be permitted to compete for appointment to the grade of Lower Division Clerk in the Secretariat, and may be allowed suitable age relaxation for this purpose.

Stenographers and Stenotypists in non-Secretariat offices may be permitted to compete for posts in the lowest grade of Stenographer in the Secretariat and may be allowed relaxation of age limit for this purpose.

Class II Services And Posts

The existing arrangement of having both Class II services and a junior branch of the Class I service may continue.

Government may decide in which services promotion from Class II to Class I should be to the senior scale of the latter.

Scientific Staffs

All new recruits to Class I junior scale should be given up to two advance increments—one increment for every year of approved research before entering service.

In view of the pay structure and the nature of work in the scientific services it is recommended that the grade structure in research and development organizations should be such as to provide for a much larger proportion of posts in the senior and the higher grades together than in the junior grade.

A scheme of special merit promotion, providing for the creation *ad hoc*, of posts outside the normal strength of a grade, in the scale of Rs. 700—1250 or in a higher scale depending on the circumstances of each case, should be introduced for outstanding research workers.

A Scientific Civil Service on the lines of the all-India and some of the Class I Central Services is not feasible. But to ensure uniformity in the management of the different scientific services, and to facilitate occasional interchange from one such service to another, when this is in the interest of scientific work, a standing committee

of representatives of various scientific Departments and organisations may be set up.

Medical And Public Health Staffs

Doctors who are in the whole-time employment of the Central Government for providing medical attendance and treatment to Government servants should not be permitted private practice.

Class IV Staffs

Excluding (a) categories peculiar to the Railways and the Posts and Telegraphs Department, and (b) a few other categories for whom new scales have been specifically recommended, all class IV staffs on the existing scales mentioned below should be brought on to the new scales noted against each. Class IV staffs on scales other than those mentioned below (their number is very small) may be fitted into one or the other of these new scales.

Existing Scales (Rs.)	Proposed Scales (Rs.)
20-½-25	55-1-60 (for under-age employees)
30-½-35	70-1-80-EB-1-85
35-1-40	75-1-85-EB-2-89
35-1-50	75-1-85-EB-2-95
35-1-40-2-50 } }	80-1-85-2-95
40-1-50	75-1-85-EB-2-95-EB-3-110
35-1-50-2-60	80-1-85-2-95-EB-3-110
35-1-40-2-60 } }	85-2-95-3-110
40-1-50-2-60 } }	95-3-110

Including unskilled staffs in workshops, there are about seven lakhs employees in the scale Rs. 30—½—35. Their total remuneration including dearness pay and dearness allowance at present ranges from Rs. 75 to Rs. 80 per mensem. Their revised scale will be Rs. 70—1—85, which with a dearness allowance of Rs. 10 will raise their minimum remuneration to Rs. 80 and the maximum to Rs. 95 per mensem.

Workshop Staffs

The following scales of pay are recommended for workshop staffs in general. The scales likely to be suitable, and generally adequate, in each important establishment have been indicated in paragraphs 21, 22 and 24 of the chapter.

	(Rs.)
Unskilled	70-1-80-EB-1-85
Semi-skilled and un-skilled supervisory	75-1-85-EB-2-95
	75-1-85-EB-2-95-3-101-
	EB-3-110
	85-2-95-3-110
	95-3-110

Skilled	85-2-95-3-110
	85-2-95-3-110-EB-3-128
	100-3-130
	100-3-130-EB-3-142
	110-3-131
	110-3-131-4-143
	110-3-131-4-143-EB-4-155
	110-3-131-4-143-EB-4-171
	EB-4-175-5-180
	125-3-131-4-155
	125-3-131-4-163-EB-4-175-5-180
	140-5-175
	150 5-180
	130-5-175-EB-6-205-7-212
Highly Skilled	150-5-175-6-205
	150-5-175-6-205-EB-7-240
	175-6-205-7-240
	205-7-240

Unskilled staffs in the workshops whose work is exceptionally heavy, or whose normal duties involve special risks; should have, in addition to pay, a special pay of Rs. three per mensem.

There should be proper classification of "jobs", but no particular system of job-evaluation in preference to others is recommended.

The system of "basic tradesmen" in the Railways should be worked so as to provide a channel through which, in trades where there is no semi-skilled grade, unskilled workers may advance to the skilled grade; and posts of basic tradesmen created with this object should not be set off against posts in the skilled grade.

A suitable system of payment by results should be introduced wherever feasible; but the basic time-wage for the period worked should be guaranteed, and the piece rate determined after scientific studies and in consultation with the workers.

The task of fitting the workshop staffs in the new pay scales should be entrusted to specially constituted bodies consisting of two experts and a neutral chairman. The recommendations made by various bodies should be coordinated by a common chairman or a joint meeting of the chairmen of all the bodies.

Railways

A bonus scheme for running staffs as an additional incentive for punctual running of passenger trains and expeditious movement of goods trains has been suggested for consideration.

An *ad hoc* committee may be set up to review the pay structure of "Marine" staffs.

Posts And Telegraphs Department

The age limit of 45 years for promotion to the Postal Superintendents' Service Class II should be raised.

The basic pay for Task Work Messengers should be the same as for other Telegraph Messengers, and a new system of additional payments related to output above the prescribed standard may be evolved.

The strength of the cadre of Boy Messengers/Peons, and qualifications for their recruitment, should be so determined as to provide for their absorption in vacancies of Messengers/Peons as soon as possible after they have reached the normal age of recruitment to Government service.

Union Territories

Excepting Delhi and Andaman & Nicobar Islands, the rates of remuneration of the employees of a Union Territory should be fixed with reference to those of the employees in the neighbouring State. If, however, the Central Government find that the emoluments as in the neighbouring State fall below rates that would be fair on a consideration of the totality of the relevant circumstances, a suitable higher rate should be fixed.

The emoluments of the employees of the Union Territories should be so adjusted between basic pay and dearness allowance that they conform to the general pattern recommended for Central Government employees.

Special Pay

There should be a periodical review of special pays to ensure that a special pay is not granted except when the necessary conditions are satisfied and that special pays are not so large or granted so freely that they distort the pay structure.

Fixation Of Pay In New Scales

The initial pay may be fixed in the new scale on a point-to-point basis, subject to specified limiting conditions.

Allowances : I. Rent Free Quarters And House Rent Allowance

Rent free residence should be provided only if duties or conditions of work are such that a higher remuneration would be granted but for this concession.

Class IV staffs already enjoying the concession may continue to do so.

Railway employees who are provided with residences in future should pay rent as employees in other Departments.

Present classification of localities on basis of population should continue, but grant of house rent allowance in special cases may be considered on merits.

The revised rates of house rent allowance should be as follows:

	Class of Cities		
	A Rs.	B Rs.	C Rs.
Below Rs. 75	10	7.50	5
Rs. 75 and above but below	15	10.00	7.50
Rs. 100			
Rs. 100 and above but below	20	15.00	7.50
Rs. 200			
Rs. 200 and above	10 per cent of pay.	7½ per cent of pay.	Nil

Where application of these rates results in reduction of house rent allowance being drawn at present, the reduction may be spread over three years or so.

The condition of residence within the limits of the qualifying city for the purpose of house rent allowance should be abrogated for both gazetted and non-gazetted staffs.

Employees whose place of duty, though outside, is in the proximity of a qualified city, and who, of necessity, reside within the city, may be given the house rent allowance admissible in that city.

II. Compensatory Allowance

The present basis, and general scheme of the city compensatory allowance do not call for revision; but the rates should be modified as follows:

	Class of Cities		
	A Rs.	B Rs.	C Rs.
Below Rs. 150	10 per cent of pay subject to a minimum of Rs. 7.50 and a maximum of Rs. 12.50.	Five per cent of pay subject to a minimum of Rs. 5 and a maximum of Rs. 12.50.	Nil
Rs. 150 and above but below Rs. 300	Eight per cent of pay subject to a minimum of Rs. 12.50 and a maximum of Rs. 17.50	Rs. 10 for all persons drawing below Rs. 500 per mensem.	
Rs. 300 and above	Six per cent of pay subject to a maximum of Rs. 75.		

Where the application of the proposed rates would result in reduction of the amount being drawn at present, the reduction may be spread over three years or so.

In Simla and Shillong compensatory allowance may be allowed at the following rates to employees drawing pay upto specified limits :

(i) house rent allowance	at the rate for 'B' cities;
(i) compensatory allowance	at the rate for 'A' cities; and
(iii) winter allowance	for five months, at half the compensatory allowance rates (paragraph 31).

In deciding whether a place should be declared a hill station for the purpose of allowances, classification made by the State Governments should generally be followed, but the rates may be different.

The existing scheme of hill allowances (except at Simla and Shillong) may continue, with adjustments in rates and slabs on the pattern of those in the compensatory and house rent allowances, etc., for cities.

In the case of remote locality allowance or bad climate allowance also no change is necessary except for adjustment in rates and slabs.

No allowance in the nature of a permanent addition to pay should be given for field service liability as such, as distinguished from actual field service (paragraph 38).

The discrimination against Clerks and Store Keepers under the Ministry of Defence, recruited before 1948, who are liable to lose their seniority if found physically unfit for field service, should end.

III. All India Transfer Liability

No special monetary concession or compensation is called for for all-India service liability.

IV. Travelling Allowance

The basis for sanctioning and the rates of fixed conveyance allowance should be revised.

The daily allowance rates, and the rates of allowance for incidental expenses in connection with tour, should be reviewed.

Certain categories of Posts & Telegraphs staff, who are now governed by special rules, should be granted travelling allowance under the ordinary rules, except for regular journeys on their fixed beats.

Postmen and Linemen should be entitled to an allowance when they have to spend the night away on duty.

Railway staff may not transport free of cost more personal effects than is permitted to other staffs, but they should be allowed incidental charges at the standard rates.

The present rates of allowance for incidentals for journeys on transfer should be halved, but in lieu of the other half an employee should be allowed half a month's pay subject to a limit of Rs. 150.

A retiring Government servant under certain conditions, or one invalidated from service, may be allowed travelling allowance for journey to his home town.

Workcharged staff in all establishments should be entitled to travelling allowance under the normal rules.

V. Transport Between Place Of Work And Residence

Loans for purchase of conveyance may be granted liberally.

No change is necessary in the present policy of not granting an allowance for travel between residence and place of work. But grant of transport concession in some form or other may be considered under certain exceptional circumstances.

Steps should be taken to ease the extreme transport difficulties of employees working in big cities.

Hours Of Work ; Weekly Off ; Public Holidays ; Overtime Allowance ; Casual Leave And Special Casual Leave

I. Hours Of Work

Weekly hours at present prescribed for various categories of staffs may continue. Working hours of office staff are on the low side and an increase would be justified, but an attempt should first be made to obtain better output within the present hours.

Uniformity in weekly working hours among various groups of employees is not necessary or feasible.

The Railway administration should examine whether the basis on which certain categories, such as Gate-men, have been classified for the purpose of working hours has changed on account of increased traffic, etc., necessitating reclassification.

In establishments in which industrial and non-industrial staff work together, the latter should observe the same hours as the former when the nature of their duties are such that their presence throughout is necessary for efficient working of the industrial staffs.

When night duty is such as to require continuous application it should be allowed weightage of 10 minutes for every hours worked, except when weightage for night duty is in effect provided in the shape of reduced weekly working hours.

Split duty should not ordinarily be required to be performed in more than three spells. Where the employee's residence is not close to the place of work, seven hours of split duty should be treated as equal to eight hours of normal duty.

II. Weekly Off

For office staffs who at present work a five-and-a-half-day week alternate Saturdays should be full working days, and full holidays. Offices which have continuous dealing with the public should, however, continue to have a five-and-a-half, or a six-day week, as the case may be.

No change is recommended in the present arrangements for a weekly break for other employees, except that in the case of "operating" staffs the weekly off should be such as to allow a full night's rest, and it should not, as a rule, be less than 30 hours.

The staffs on call duty should have at least a fortnightly off and this should generally be possible by internal adjustment of duties. Where, however, there is a single employee on call duty and such an arrangement will not be possible, he should not ordinarily be kept at a one-man station or section for more than three to six months at a time.

A fortnightly, if not a weekly, break should be allowed to Cooks, Waiters, etc., by some suitable arrangement.

For Chowkidars who have active duties requiring continuous alertness, a weekly off should be allowed. Chowkidars of different Departments stationed at the same place might be treated as a single group for the purpose of enabling them to have a weekly or a fortnightly off by rotation.

To office staffs and other employees for whom a compensatory holiday is not obligatory under the law, such holiday need not be allowed for occasional work on Sunday, which should not, however, become a regular feature.

To "operating" staffs generally, compensatory break should be allowed for work on an off day as soon thereafter as possible, and not later than two months.

An employee who is required to work on his off day, should normally have compensation in the form of another day's break. But where, in exceptional cases, monetary compensation has to be paid for such work it should be at one-and-a-half of the time rate. In no case should both, a compensatory break and a monetary compensation, be allowed for work on a weekly off day or on an authorised holiday.

III. Public Holidays

The number of public holidays should be reduced to 16 where they exceed that number.

Staffs who do not at present enjoy any public holidays should be considered entitled to the three National holidays, viz., Mahatma Gandhi's Birthday, Independence Day and Republic Day; and since, with some exception, they cannot be relieved of their duties on those days, they should be compensated by payment at one-and-a-half time the normal rate.

No change is recommended in the existing number of holidays for workshop staffs, except that it should not in any case exceed 16.

Non-industrial staffs employed in industrial establishments should have the same number of public holidays as the industrials.

For work on a public holiday to which an employee

is entitled, overtime allowance should be paid at one-and-a-half of the time rate, except when he becomes entitled to a higher rate under the Factories Act, 1948, or under any other law.

IV. Overtime Allowance

Overtime allowance should be granted only to non-gazetted staffs drawing pay not exceeding Rs. 500 per mensem under specified conditions, and with the proviso in the case of office staffs (whose hours of work are relatively short) that claim to overtime allowance will arise only for duty in excess of 45 minutes beyond the prescribed hours on any working day.

In the case of workshop staffs who work for less than 48 hours the overtime allowance for work in excess of the prescribed working hours, but not in excess of 48 hours, should be determined by common criteria so that only such divergencies may be retained as have a rational basis.

Non-industrial staffs in workshops whose hours of work are the same as those of industrial workers should be governed by the same orders regarding overtime payment as are applicable to the latter.

Overtime allowances, should, in all cases, be calculated on the basis of pay and allowances, but excluding house rent allowance.

The rate of overtime allowance should be determined on certain specified general principles. An inter-departmental committee may review the present arrangements and work out a detailed scheme in the light of the general principles recommended.

Overtime allowances of Railway staffs should not be calculated on monthly basis; if there are practical difficulties in calculating it on weekly basis it may be calculated on half-monthly basis.

Cases in which overtime earnings are a regular supplement to pay, and where pay has been fixed taking this factor into account, a complete stoppage or substantial reduction of overtime earnings should be compensated by suitable adjustment of pay.

V. Casual Leave

Casual leave should be reduced to 12 days in a year for office staffs. Operating and other similar staffs who have either no public holidays or a restricted number of public holidays may have 15 days; and workshop and other industrial staffs seven days in a year.

Facilities for special casual leave for work connected with service associations etc., broadly modelled on those provided by the Department of Posts and Telegraphs or the Ministry of Defence to their civilian employees, may be extended to other employees representing recognised service associations.

Leave Entitlements

Earned leave should be admissible to non-industrial

staffs at the following rates:

During the first five years	1.75 days for each month of service
During the next 10 years of service	2.25 days for each month of service
After 15 years of service	2.5 days for each month of service

Workshop employees in the Railways may continue to earn leave at the rates applicable to non-industrial staffs. But if casual leave is allowed to them there should be a proportionate reduction in the rate of earned leave.

Leave entitlements of industrial staffs in Departments other than Railways should be as follows:

(i) Earned Leave:

During the first five years	One day for each month of service
From the sixth to 15th year	1.25 days for each month of service
Above 15 years	1.75 days for each month of service

(ii) Leave on half pay: 10 days for each completed calendar year of service, subject to a maximum of 30 days at a time, and 180 days during the entire service.

(iii) Extraordinary leave: Upto three months at a time, but extensible upto 18 months if suffering from a disease requiring prolonged treatment.

(iv) Sick leave on full pay: 10 days in a calendar year non-cumulative.

Heads of Departments, offices, etc. must plan their work in such a way as to permit employees to take a certain amount of leave annually, and a longer leave after some years, or according to any special necessity.

There should not be a monetary limit on leave salary when an employee has to take leave because of sickness, or when he is allowed longer leave for pursuing an approved course of study otherwise than on study leave terms.

While the normal limits of accumulation of earned leave should be reduced to 120 days, additional accumulation of upto 60 days should be permitted at the discretion of the sanctioning authority when leave applied for is refused in the public interest.

Hospital leave should be admissible to all low-paid employees, as also to those Class III employees whose duties involve the handling of dangerous machinery, explosive materials, poisonous drugs, etc., or the performance of hazardous task.

Industrial staffs should also be eligible for hospital leave upto three months on full pay, or six months on half pay, in a period of three years.

Maternity leave admissible to industrial staffs should be approximately the same as that admissible to non-industrial staffs. In the case of temporary and officiating service also, the period of maternity leave should count for purposes of increments.

Study leave may be granted for a study tour in which a Government servant may not attend a regular academic or semi-academic course; and for studies which may not be closely and directly linked with a civil servant's work but which will improve his capability etc. as a civil servant. Study leave should be liberally granted, particularly to scientific, technical, and administrative staff, and in suitable cases the staff should even be encouraged or advised to have such leave. Ordinarily it may not be necessary to extend the standard study leave terms to industrial staffs, but the question of providing them facilities for training and technical education may be considered.

The rates of leave salary during 'departmental leave' should be reviewed. Staff subject to 'departmental leave' should, while on duty, earn leave at the same rate as other staff, and not at a lower rate.

Leave salary may be calculated on the basis of the average of the rates of pay admissible during each of the 10 months in which an employee was on duty immediately prior to the month in which leave commences; but in the case of employees who proceed on leave from posts the maximum pay of which does not exceed Rs. 100 per mensem, leave salary may be based on the rate of pay drawn immediately before proceeding on leave.

An employee granted leave beyond the date of superannuation, or on the expiry of a period of extension of service, should not retain a lien on his permanent post during the leave, or count the leave as pensionable service.

The adequacy and basis of calculation of leave reserves should be reviewed.

Age Of Superannuation

The age of superannuation should be 58 years for all classes of public servants, including those for whom the retirement age at present is 60. But persons already in service may continue upto the age of 60, if they are at present entitled to do so.

Scientific and technical personnel may ordinarily be retained in service upto the age of 60 by grant of extension or re-employment for two years.

Retirement Benefits

Industrial staffs, on being made permanent, should be brought under the standard pension scheme, those already in service, however, being given the option to continue under their existing retirement benefit schemes.

The right to withdraw the whole or a part of a pension should be restricted to certain very exceptional, specified contingencies, and even then the power should be exercised, and where the original order is passed by a subordinate authority the appeal against it decided, only in consultation with the Union Public Service Commission.

The rate of gratuity should be changed so as to make the maximum amount available on completion of 30 years' qualifying service.

Temporary service when followed by permanency, whether in the same or any other post, should count in full for pension. Extraordinary service of certain employees in Defence establishments should count as half and not as one-quarter as at present.

Leave taken out of India should count for pension to the same extent as leave taken in India.

When the total period of qualifying service exceeds completed years by more than six months, an additional benefit of half a year's pension may be allowed for the purpose of determining the quantum of pension.

Officiating, special, and personal pay may continue to count in full in cases in which it so counts at present, but in other cases such pay drawn during the last three years of service should be taken into account in full or in half according to specified circumstances.

Non-practising allowance of doctors should count for pension.

Government may consider the question of granting some relief to persons whose pension does not exceed Rs. 200 per mensem, when there is increase in the cost of living.

The minimum gratuity admissible to the family of a permanent employee who dies before completing five years' qualifying service should be equal to six months' emoluments, except in cases in which death occurs in the first year of service, when the minimum may be two months' emoluments.

The family of an employee who is a subscriber to a contributory provident fund should be granted gratuity equal to the difference between the amount that would have been admissible had he been on pensionable establishment and the Government's contribution to his provident fund with accumulated interest. If such an employee dies before becoming eligible for admission to a contributory provident fund, the gratuity should be the same as for purely temporary employees.

A widow's and children's pension benefit scheme, on a contributory basis, should replace the existing family pension scheme.

Scientific employees of semi-Government institutions, financed from cess or Government grants, when appointed to permanent Government service, should be permitted to count in full their service in those institutions as qualifying service for pension, provided their previous employers are willing, in lieu of their contribution to the contributory provident fund, to pay to the Government pension contribution for the period of service with them.

To facilitate freer interchange of scientists and technologists between the Government and the universities, the pensionary contribution which the latter have to pay when they borrow the service of a Government servant

should be restricted to the rate at which the university contributes towards the provident fund of its other employees.

Medical Facilities

Industrial staffs and their families should have the same facilities for medical care and treatment as non-industrial staffs.

The Central Government should have their own arrangements for the medical care of their employees in Calcutta.

Medical facilities for all Central Government employees should be placed on a contributory basis, and the pattern of medical care and treatment should, wherever there is a concentration of employees, be broadly similar to that available under the Contributory Health Service Scheme in Delhi.

Housing Facilities

Government should have a comprehensive programme for housing their employees.

There should be substantial expansion and acceleration of the present building programme, particularly in Bombay and Calcutta, and continuance of construction in Delhi on the present scale.

There should, in addition, be deconcentration of the Central Government offices from Bombay and Calcutta and any further concentration of offices in central parts of Delhi should be avoided.

Housing in small places where there is a large concentration of Central Government employees requires urgent attention.

Employees who are transferred from one station to another, should be given priority in housing.

Till the required number of permanent houses can be constructed, an emergent programme of construction of inexpensive, temporary accommodation may be taken up.

Government should encourage and assist employees to build their own houses specially on a co-operative basis.

The rent charged from the occupants of 'substandard' quarters, if any, should be appropriate to the accommodation provided.

The standard rent should be calculated at six per cent of the capital cost for all categories of employees in the Railway administration also.

The standard rent should be calculated after taking into account the cost of site.

The accommodation provided for Government servants in the highest pay ranges should not be of a type carrying a standard rent higher than 10 per cent of the occupants' pay.

The maximum rent recoverable from employees whose pay is below Rs. 150 per mensem, should be limited to seven-and-a-half per cent of pay.

Educational Assistance

In the interest of Central Government employees as well as of other floating population in the country, the growth of schools with common syllabus and media of instruction and moderate fees, should be encouraged.

The Railway scheme of setting up hostels, with concessional lodging and boarding charges at a graduated rate, should be extended for the benefit of other employees drawing pay not exceeding Rs. 300 per mensem.

A scheme of educational assistance, similar to the one in operation in the Railways, may be introduced for other Central Government employees whose salary does not exceed Rs. 300 per mensem, to enable them to send their children to boarding schools of their choice when suitable schooling facilities do not exist at the station where they are posted.

Uniforms, Protective Clothing, Etc.

Uniforms, etc., are essential equipment for duty and not fringe benefits. Washing allowance need not be given to all employees who are supplied with uniforms, but may be granted to those drawing basic pay not exceeding Rs. 150 per mensem.

Working Conditions; Canteen Facilities; Staff Welfare

There should be a comprehensive examination of the rest house and retiring room facilities which operating staffs generally require. The difficulties of the R.M.S. staff call for particularly urgent attention.

There should be a planned programme (and fair as among the Departments) of construction of office buildings to ensure that within a few years all offices are satisfactorily housed.

There is wide scope for improvement of working conditions, and immediate improvement is possible in various matters such as cleanliness, lighting, heating and cooling arrangements, and office furniture and equipment.

At least a tiffin room should be provided wherever the number of employees is small, and a canteen where the strength of the staff exceeds 50. There should be a standard minimum provision of departmental assistance to canteens, tiffin rooms, etc. A Government-wide plan for providing suitable accommodation for canteens should be prepared, and put into effect within a reasonable period.

As a first step towards a co-ordinated welfare programme for the whole body of Central Government employees, there should be a central agency, or a committee drawn from different Ministries, to keep a general oversight on welfare activities and to maintain uniformity as far as possible.

In addition to social, cultural and recreational activities promotion of Co-operative Societies and

schemes for relief to employees or their dependents in certain circumstances, deserve special attention.

Staff benevolent funds should be set up by the Departments on contributory basis.

The present expenditure on welfare activities should be substantially increased and the grant in different Departments should be more or less on the same scale.

A committee may be set up to make a review of the existing welfare arrangements and to make recommendations for their improvement.

Welfare measures should be administered with as full a participation of the staff as possible.

The working of the existing 'holiday homes' should be carefully examined before any new ones are started.

Leave Travel Concessions

The travel concession allowed to different Classes of Railway employees should be uniform, and in all cases reduced to one set of free passes and two sets of privilege ticket orders.

For other employees the present concession should be liberalised as follows: (a) It should be extended to such industrial and work-charged staffs as are entitled to regular leave; (b) employees who leave their families in their home towns may have the concession for themselves only, annually and (c) for employees unable to avail of the concession in a block of two years, the next block should count from the end of the first year; (d) an employee whose home place is not connected by rail should be allowed the concession also for journeys between his home and nearest railway station.

Promotion And Character Rolls

Revision of grade structures and complements may not be made merely for the purpose of increasing promotion opportunities.

With the exception of the upper division clerical cadre direct recruitment to the higher grades, where it is made at present, should continue.

Merit should continue to be the criterion in making promotions at higher levels. At lower levels the principle of seniority-cum-fitness is appropriate.

For promotions to grades in which specialised knowledge is necessary, qualifying examinations designed to test working (not academic) abilities may be useful; but with this exception, examination need not be adopted as a general method of selection for promotion.

There should be a system of promotion by a special limited competitive examination to provide young officers in Class II and Class III services an additional opportunity to enter any of the Class I or Class II services to which there is direct recruitment by a competitive examination.

The form in which confidential reports are drawn up should be related to the nature of the work of the parti-

cular class of employees, but should otherwise be as uniform as possible, and so designed as to provide for assessment under a number of specified headings, including potentialities of the employees for assuming higher responsibilities, as well as a general summing up.

A general grading of employees by the first reporting officer should not be obligatory; such grading should be done at a higher level, preferably at the level at which a whole cadre is dealt with for the purposes of promotion etc.

Confidential reports should be scrutinised at each higher level as soon as they are received to make sure that they had been prepared in accordance with the relevant instructions, and should be returned for rectification where necessary.

Unless it is proposed not to enter it in an employee's character roll, an irremediable as well as remediable defect should invariably be communicated to him.

The present arrangement of the immediate superior writing a confidential report may continue, but the next higher officer should be required to exercise a positive and independent judgment on the remarks of the reporting officer, and should clearly express his agreement or disagreement with the remarks particularly if they are adverse.

Temporary Employees; Workcharged Staff; Casual Labour

At present the number of temporary employees is disproportionately large for which there appears to be no justification.

The permanent requirements of all categories of staff should be speedily determined and thereafter the margin of temporary posts should be the same for all Classes.

One or two official committees may be set up to examine the permanent requirements of different Departments and to ensure that the revised orders of Government are given effect to within six months to a year.

Workcharged staffs whose services are likely to be required on a permanent or semi-permanent basis, should be made permanent, or given semipermanent status. They should be classified into industrial and non-industrial depending on the nature of their duties, and should have the same conditions of service as other industrial or non-industrial staffs.

Temporary workcharged staffs whose employment is not casual may have the benefits and concessions allowed to other temporary staffs, industrial or non-industrial, as may be appropriate.

Casual employment should be restricted to work of a truly casual nature; and in order to ensure that this is so there should be a review of the existing position.

The same rates of wages should be fixed for casual labour in "unscheduled employments" as are fixed for comparable "scheduled employments" under the Central

Government (under the Minimum Wages Act). Or their wages may be fixed generally with reference to the minimum prescribed by the respective State Governments for comparable "scheduled employments".

All casual labour under the Central Government, including those to whom the minimum wages law is not applicable, should have the benefits and safeguards provided by Rules 23—25 of the Minimum Wages (Central) Rules, 1950, relating to weekly holidays, working hours, night shifts, and extra wages for overtime.

Long experience as casual labour should be taken into consideration while making selections for appointment to regular establishments.

Government Servants Conduct Rules

Instead of placing a general ban on public expression of views and then providing for some exceptions (as is the case at present), a general freedom of intellectual expression should be recognised and only such specific restrictions should be imposed as are necessary to meet the requirements of the public service.

Political Rights

Removal or relaxation of the existing restrictions on the exercise of political rights by employees would not be in the public interest, or in their own interest.

Right Of Association

The membership of an unrecognised association should not as such be a disciplinary offence. But if such an association takes recourse to or assists in activities which if resorted to by individual Government servants would constitute a breach of a provision of the Conduct Rules the Government servants concerned may be required to withdraw their membership on pain of disciplinary action.

The rules of recognition of associations should be conceived and recognition granted in a liberal spirit.

Public servants should not resort to strikes or threaten to do so; but without amendment of the law a change should be brought about by the employees themselves abjuring the use of the strike weapon and demonstrations, and the Government accepting a convention that they would refer to arbitration any dispute concerning certain important matters which are not settled by negotiation.

Reasonable facilities should be provided for trade union activities.

Machinery For Negotiation And Settlement Of Disputes

A Whitley type machinery, with a central joint council representing the whole body of Central Government employees, both industrial and non-industrial, should be set up for negotiation and settlement of disputes. A committee of the central joint council may

deal with matters peculiar to industrial staff.

There should be departmental joint councils also.

As a necessary complement to a joint machinery for negotiation, there should be provision for compulsory arbitration, open only to recognised associations and limited to pay and allowances, weekly hours of work, and leave, of employees not above the present Class II level.

The Ministry of Labour should be closely associated with important matters concerning staff relations. It should, in particular, be associated with the proposed central joint council, and should appoint the chairman of the board of arbitrators, should arbitration become necessary.

Disciplinary Proceedings

All memorials etc., as well as appeals, which come to the Central Government against imposition of major penalties, should be disposed of only in consultation with the Public Service Commission.

The power to withhold appeals, memorials or petitions under prescribed circumstances should be exercised by an authority higher than the one which had passed the orders against which the appeal, etc., is made.

A disciplinary enquiry should not be conducted by the immediate superior of the Government servant being proceeded against, or by an officer at whose instance the enquiry was initiated.

Classification Of Services

The present classification of services and posts into four Classes—I, II, III and IV—should be abolished.

Efficiency In The Public Service

The recommendations for improvement in the rates of pay and conditions of service have been made on the assumption that the employees will give, and the Government will take from them, a full day's work. It is suggested that an urgent and comprehensive review may be made of the whole problem of efficiency and productivity in Government offices, services (Railways, Posts & Telegraphs, etc.) and workshops.

Statistical Requirements

A systematic collection of data relating to wages, salaries and conditions of service in outside employment, and a continuous review of the data with reference to the rate of remuneration and service conditions etc., of Central Government employees, is recommended.

COMMITTEE OF PARLIAMENT ON OFFICIAL LANGUAGE, 1957—REPORT

New Delhi, Ministry of Home Affairs, 1959 122, vip.

Chairman : Shri Govind Ballabh Pant.

Members

Rajya Sabha : Shri Purushottam Das Tandon; Shri K.P. Madhavan Nair; Shri Alluri Satyanarayana Raju; Prof. Dr. Raghu Vira; Sardar Budh Singh; Shri Bhagirathi Mahapatra; Dr. A. Ramaswami Mudaliar; Shri Perath Narayanan Nair; Shri Prafulla Chandra Bhanji Deo. Lok Sabha—Seth Govind Das; Shri P.T. Thanu Pillai; Swami Ramananda Tirtha; Shri B.S. Murthy; Pandit Thakur Das Bhargava; Shri Hifzur Rahman; Shri B. Bhagavati; Shri U. Srinivasa Malliah; Shri Frank Anthony; Shri Mathura Prasad Mishra; Shri Manikya Lal Varma; Shri Bhakt Darshan; Shri Shripad Amrit Dange, Shri Harish Chandra Sharma; Kumari Maniben Vallabhbhai

Patel; Shri G.S. Musafir; Shri Atulya Ghosh; Shri Deorao Yeshwantrao Gohokar; Shri Narendra Nath Mukerjee; Shri Pramathanath Banerjee.

Secretary : Shri R. Prasad.

APPOINTMENT

The Committee of Parliament on Official Language was constituted through the motion moved by the Minister for Home Affairs on September 3, 1957.

TERMS OF REFERENCE

To examine the recommendations of the Official Language Commission and to report to the President their opinion thereon.

CONTENTS

Introductory (Provisions of Article 344 relating to

Constitution and Duties of the Official Language Commission; Appointment of the Commission—Terms of Reference—Procedure; Submission of Commissioner's Report; Committee of Parliament on Official Language—Constitutional Provisions—Election of Members; Election of Chairman—Procedure and Rules of Business; Recommendations and Conclusions of the Commission—Scope of Committee's Duty; Meetings of the Committee—Method of Work Adopted—General Discussion—Detailed Examination of Recommendations; Materials Used—Acknowledgments; Plan of the Report); General Approach to the Problem (Constitutional Provisions relating to Official Language—Official Language of the Union—Official Language of the States—Language of Communication between the States and the Union and between One State and Another—Language of Legislation and High Courts—Special Directives; Salient Features of the Constitutional Settlement; Constitutional Settlement—An Integrated Scheme; Need for Replacing English by Hindi and Other Indian Languages; Practical Reasons why English cannot continue Indefinitely—Considerations of National Pride and Dignity; Hindi and other Indian National Languages capable of replacing English for Official Purposes; Development of Hindi as the Medium of Expression of India's Composite Culture; No Conflict between Hindi and other National Languages; Special Place of English in Certain Spheres; Manner in which Changeover should be brought about; Complete Changeover to Hindi by 1965 not Practicable; Need for a Plan of Work); Opinion of the Committee on the Recommendations of the Commission (scope of the Chapter); Part I—Section I : Progressive Use of Hindi for Official Purposes of the Union (Preparatory Measures to lay the Ground Work for the Changeover; Terminology; Translation into Hindi of Official Publications embodying Rules, Regulations, Manuals and Other Procedural Literature; Furnishing of Mechanical and Service Aids; Training of Administrative Personnel; Future Recruitment to the Union Services; Recruitment to Subordinate Posts in Local Offices of Central Government Departments; Selection of Candidates for Training Establishments; Recruitment to All-India and Higher Central Services; Propagation and Development of Hindi); Section II: Restrictions on the Use of English; Section III : Language of Legislation and of Higher Courts (Constitutional Provisions; Commission's Recommendations—Language of Legislation; Language of Parliamentary Bills, Acts, etc.—Committee's Opinion; Language of State Bills, Acts, etc.—Committee's Opinion; Language of the Supreme Court; Language of High Courts; Preparatory Measures for Changeover in the Field of Law); Section IV: Form of Numerals (Form of Numerals to be Used for Official Purposes of the Union); Section V: Preparation of a Time-Schedule; Part II—Statement giving the Recommendations of the Official

Language Commission and the Committee's Opinions Thereon; Minutes of Dissent and Notes Recorded by Members; Annexures I to V.

RECOMMENDATIONS

The statement below gives the recommendations of the Official Language Commission in the order in which they are stated in their report and the opinions thereon of the Committee of Parliament on Official Language.

Serial Recommendation of the Official Language Commission No.	Opinions of the Committee of Parliament on Official Language	
1	2	3

- Chapter V**
Terminology
1. In adopting terminology, clarity, precision and simplicity should be primarily aimed at. Doctrinaire insistence on 'language purism' is deprecated. The recommendations one to five may be accepted.
 2. Promising sources for adopting new terminology should be available in the indigenous terms current in the past, and the terms currently used in actual life amongst various categories of craftsmen, artisans, etc. These should be explored. In suitable cases, international terminology may be adopted or adapted to the genius of the Indian languages.
 3. The maximum possible identity in evolving new terminology for all Indian languages should be aimed at.
 4. Suitable arrangements should be made for evolving terminology and for coordinating such work as between different authorities with reference to the Union language as well as the other regional languages.
 5. On a review of the work done so far there would seem to be room for greater acceleration in the work and need for achieving more effective co-ordination as between different terminological efforts.

1	2	3	1	2	3
		Chapter VII Language in Public Administration—I Official Language Of The Union			
The pre-requisites of a change-over in the language for administration are:			able to invest in a single agency of the Central Government the general responsibility for direction and superintendence over all such work.		
(1) Preparation and standardisation of the necessary special terminology used in the administrative field.	7.		As regards (3) above, (training of personnel): the present arrangements made by the Government of India for training their employees on a voluntary basis in the Hindi language are reviewed.	Government may prescribe obligatory requirements on Government servants to qualify themselves in Hindi.	
(2) Translation into Hindi of official publications embodying rules, regulations, manuals, hand books and other procedural literature relating to the working of the administrative machinery.			If experience shows that adequate results are not forthcoming [under such optional arrangements, it would be legitimate and necessary for Government to impose, in pursuance of their language policy, obligatory requirements on Government servants to qualify themselves in Hindi within a reasonable period to the extent requisite for the discharge of their duties.		
(3) Training of administrative personnel of different categories in appropriate standards of linguistic competence for the purpose of using the new linguistic medium with the requisite efficiency and facility of expression.	8.		As regards (4) above, schemes should be adopted whereunder stenographers and typists are granted special leave and accorded special facilities to enable them to undertake training in stenography and typing in the new linguistic medium and to acquire knowledge of the Union language.	This may be accepted.	
(4) Development and furnishing in the new linguistic medium of the mechanical and service aids necessary for speeding up and facilitating office work, such as typewriters and typists, stenography and stenographers, printing and duplicating machines, teleprinters and other communication services adapted to the use of the new medium, etc.	9.		The standard of linguistic ability in the English language normally associated with the academic education prescribed as a qualification for purposes of recruitment to various categories of posts and services would furnish a guide as to the standard of linguistic ability in Hindi to be aimed at for the different categories of Government personnel. During earlier stages perhaps a slightly lower standard might suffice.	This may be accepted in principle but during the transitional stages a slightly lower standard might suffice.	
Regarding (1) above, it is a part of the general problem of terminology considered in Chapter V.	6.	Regarding (2) above, it is necessary to ensure that a measure of uniformity is observed in the language used in the translations of all this procedural literature, and for that purpose it may be advised.	This may be accepted.		
	10.		Generally speaking, penalties would seem to be appropriate	This recommendation may be dropped.	

1	2	3	1	2	3
			with reference to failure to reach the prescribed standard by the due date; incentives and rewards would seem to be appropriate with reference to performance above the minimum standard laid down.		
11.	In certain segments of the administrative machinery of the Union Government, technical English terms might continue to be used for an indefinite time in the future at levels at which it is not considered necessary to evolve Indian terminology; similarly correspondence may be carried on in the English language where the work involves constant contact with foreign countries through that medium.	This may be accepted except that the Committee feels that it would suffice to provide for the continued use of technical English terms in the future for so long as it is not considered necessary to evolve Indian terminology, and not for an indefinite time as recommended by the Commission.	This may be accepted.	with a country-wide coverage should be reviewed and decentralised to conform to the requirements of such bilingualism. The recruitment methods and qualifications for recruitment may have also to be revised suitably.	
12.	Apart from the Ministries or Departments of the Government of India, the linguistic medium will have to change over in the administrative agencies and organisations, such as the Railways, the Posts and Telegraphs, the Excise, Customs, Income-tax Departments, and so on. Some of these organisations have units and branches located in different parts of the country and the language problem presents a special aspect in regard to them. It is necessary that these administrative organisations should evolve a measure of permanent bilingualism; that is to say, they will use the Hindi language for purposes of internal working and the respective regional languages in their public dealings in the respective regions.	The recommendations 13 to 15 may be accepted.	As employers, these all-India departments and organisations have certainly the right to prescribe the standards of Hindi qualification (as of qualification, where necessary, in the respective regional languages) necessary for purposes of recruitment to the different categories of their establishment. It may be that for zonal and regional requirements, the standard of Hindi qualification could be somewhat lower than what would be necessary for the headquarters organisation of these offices as the work in the latter, as distinguished from the former, would be carried on wholly in Hindi.		
13.	It is necessary that the staff structures of these administrative agencies and departments of the Government of India		In order that the employment opportunities in the different regions should not be curtailed during the transitional period, the requirements of Hindi knowledge may at the start be pitched somewhat lower having due regard to the progress of Hindi in the local educational system, any deficiency being made good by in-service training after recruitment. The standard may be progressively raised as facilities for instruction in the Hindi language improve in particular regions.		
			16. The language policy of these all-India administrative agencies of the Central Government, like the Railways, Posts and Telegraphs, in their dealings with the public should be framed principally with a view to the convenience of the	The recommendations 16 and 17 may be accepted.	

- public whom they are designed to serve : the instrumentality of these departments should not be used as a 'lever' to force the pace of Hindi propagation at the cost of convenience to the public. Where Hindi terms and expressions are used on signboards, forms, etc. for the purpose of familiarising the public with them, the text should also be given in the regional language (or English where relevant) having regard to public convenience.
17. It is necessary to examine all new Hindi terms and expressions, especially those used by these all-India administrative agencies which come into intimate contact with the public, so as to ensure that the terms and expressions are not discordant with local forms of speech and associations; where certain Sanskrit words have come to acquire in different languages different specialised meanings the employment of inept or unsuitable expressions in disregard or ignorance of these is apt to bring the attempt at 'Indianisation' of the medium itself into dispragement and ridicule.
18. It would not be correct instead of training personnel in the new medium, to adopt the device of separate translation units or bureaux being maintained at additional cost to the public funds for translating the work done originally in the English language. While translation services would have their place in the administrative organisation both permanently and as an aid during the transitional stage, these cannot be a substitute for training the personnel to do its work originally in Hindi. In our view, the continuance of

- the original work in English and its translation at public expense at different stages into Hindi was not the sense in which the changeover of the linguistic medium for the business of the Union was enacted in the Constitution.
19. The Union Government would be justified in prescribing a reasonable measure of knowledge of the Hindi language as a qualification for entry into their services by new entrants, provided a sufficiently long notice is given and the measure of linguistic ability prescribed is moderate, any deficit being made good by subsequent in-service training. This may be accepted.
20. In the case of officials of the age of 45 and above, the requirement to be prescribed should be for a 'comprehensive knowledge' of Hindi rather than high levels of linguistic ability for purposes of expression corresponding to the levels of their ability in English. If necessary, separate tests may be devised for the purpose. The Committee considers that there should be no obligation to learn Hindi in the case of officials of the age of 45 and above.
21. We do not recommend that any restrictions should be imposed for the present on the use of the English language for any of the purposes of the Union. This may be accepted.
22. It has not been possible for us to furnish a regular time-table by dates and stages as to how Hindi should be introduced into the business of the Union so as to accomplish the general changeover within the period fixed by the Constitution. Since the Ministries of the Government of India are the Union, in pursuance of the opulence of the unity, the phasing of the unions of the Committee on the progressive use of Hindi must, in general, be bilateral and recommendations of coherent in the different the Official Langu-

1	2	3
		Ministries and Departments. age Commission.
	We have not had the benefit of a provisional 'plan of action' by the Government of India covering all its Ministries and Departments and comprehending their special difficulties if any, estimates of workloads of basic preparatory work involved, the present linguistic capacity of all the Government staff and approximate dates by which they could be trained in the new linguistic medium etc. While we have therefore indicated the prerequisites, the general sequence of the phasing and the principles covering various related issues, the actual drawing up of a plan of action and the setting up of time schedule therewithin must be left to the Government of India themselves to do after a study of the relevant factors.	
23.	The special case of the Indian Audit and Accounts Department under the Comptroller and Auditor-General of India is examined. After a State has adopted its regional language as the official language, it will be necessary to arrange that the staff of the Indian Audit and Accounts department dealing with the affairs of the State is versed in that language sufficiently for the purpose of carrying out its duties of compiling accounts and the exercise of audit. This implies that the Accountant General's/Comptroller's office in a State should be capable of compiling accounts from returns submitted in the regional language and conducting audit with reference to noting and administrative decisions recorded in the regional language.	This may be accepted.
24.	'Provincialisation of audit was	This may be accepted.
		mentioned as a possible way of resolving this difficulty; it is however not necessary to consider such an alternative which would involve a major change in the constitutional arrangements currently in force. We feel that it ought to be possible to devise a solution within the framework of the existing constitutional arrangement whereby, on the one hand the establishment of the Accountant-General's / Comptroller's office in each State would be able to carry out their duties in respect of transactions recorded in the State language, and on the other, the present system, wherein the accounts and audit responsibility in respect of the Union as well as of the States is centred in the Comptroller and Auditor General working through a single Indian Audit and Accounts Department, is maintained. The organisation and methods of staffing of the Indian Audit and Accounts Department may have to be revised, somewhat similarly to the lines envisaged in respect of the Central Departments comprising activities spread over the whole country.
		Chapter VIII Language In Public Administration—II Progress Made In The Use Of Hindi In State Administrations
25.	The States concerned will have to consider for themselves at what level administrative occasions would arise for their officers to enter into communication, oral or written, with officers of other States or of the Union. The State Governments must determine for themselves what staff would be affected and what precise steps should be taken for	This may be accepted.

1	2	3	1	2	3
			of numerals is in current use in the four great Dravidian languages, sometimes and to a varying extent, alongside of the numerals of their respective scripts.		
26.	train their personnel at the appropriate levels for dealing with Hindi communications.	Recommendations 26 and 27 may be accepted.	29.	In certain States in the Hindi-speaking region the Devanagari form of numerals is used either exclusively or in addition to the international form of numerals for internal purposes of the State administration.	So far as the Union Government is concerned, the Committee considers that there should be a uniform basic policy as to the use of Devanagari numerals in addition to the international form of numerals in the publications of the different Ministries depending on the public intended to be addressed as to the use of Devanagari numerals in addition to the international form of numerals in the publications of the different Ministries.
27.	As in the case of the Union Government, the State Governments would be justified in imposing obligatory requirements for the acquisition of qualifications in the Hindi Language with reference to the staff embraced by the requirements of the new linguistic medium in the field of inter-State and State-Union communications. It would seem that acquisition of a knowledge of the Hindi language beyond these requirements should be on the basis of rewards and incentives rather than compulsion and penalties; however, this is an issue which must be decided by each State for itself.		It is for the respective State Governments to decide whether this should be so. So far as the Union Government is concerned, there should be a uniform basic policy depending on the public intended to be addressed as to the use of Devanagari numerals in addition to the international form of numerals in the publications of the different Ministries.		
	Arrangements may be made for outgoing communications from the Union Government to a Hindi-speaking State being accompanied by a Hindi translation of the English text, whenever such a State makes a request to this effect. The employment of Hindi in actual work of administration before 1965 in this manner will help in establishing forms of address, expressions etc. in that language.		30.	We have no recommendation to make for the issue of directions by the President for the use of the Devanagari form of numerals in addition to the international form of Indian numerals for any purposes of the Union between now and the time when the issue will be re-examined by the next Commission to be appointed in 1960.	This appears to be unnecessary and need not be taken into consideration.

The Form Of Numerals

28. The international form of numerals is itself of Indian origin and as such is nothing but yet another mutation of the ancient Indian numerals, analogous to the several forms of numerals developed, together with their separate scripts, by the numerous Indian languages. It is to be noted that in the South the international form
- This may be accepted.

- Chapter IX**
Language Of Law And Law Courts—I
Language Of Legislation
31. The practice as regards answering interpellations appears to vary. In some cases, provision is made, for furnishing, for the information of the other Members, written translations of the questions and answers in the prescribed language(s) of the legislative
- Under the terms of reference, the Commission were expected to make recommendations as to the language to be used for all or any of the purposes mentioned

1	2	3	1	2	3
		body concerned when these have been rendered in another language. Such a practice might be generalised with advantage.	in article 348 of the Constitution. The question of language to be used in Parliament and State legislatures is not covered by article 348. These recommendations, therefore, go beyond the terms of reference and may be left out of consideration.	ment and also of course consequently the language of all statutory orders, rules, etc., issued under any law, should be the Hindi language.	ritative text thereof has to be published in English under Article 348 (3). If the original text is in a language other than Hindi, a Hindi translation may also be published with it.
32.	It may happen that for a period of time after (i.e., after January 25, 1965, in the case of the Parliament) English has been replaced by Hindi in the Parliament and by the respective official languages of the States, in the State Legislatures, cases would arise in which a member may not be able to express himself adequately in Hindi/the State language concerned or in his own mother-tongue; and it would seem advisable that provision should be made to empower the presiding authorities in such cases to permit the members to address the House in English.				
33.	Apart from the authoritative enactment which, in our opinion, ought to be eventually in Hindi, both in respect of parliamentary legislation and State legislation, there may be need, for the sake of public convenience, to publish translations of the enactments in different regional languages. In respect of State legislation, this would be normally necessary in the regional language(s) prevalent in the State, whereas in respect of parliamentary legislation it may be necessary in all the important regional languages current in the country.	Until 1965 or until English is replaced by Hindi, parliamentary legislation should continue to be in the English language with an authorised translation in the Hindi language. Arrangements may be made for providing translations also in the official languages of the various States.			Recommendations 35 to 37 may be accepted.
34.	We consider that it is essential, when the time comes for this changeover, that the entire statute book of the country should be in one language which cannot of course be other than Hindi. Therefore the language of legislation of the States as well as of Parlia-	So far as the language of State legislation is concerned, the State legislature may adopt the official language of the State for this purpose but an autho-			

Chapter X Languages Of Law And Law Courts—II Language Of Law Courts

35. So far as the language of the Supreme Court is concerned, eventually there can be only one language, i.e. Hindi, in respect of the entire court proceedings and records, including of course the judgments and orders. When the time comes for the changeover, the Supreme Court will have to function only in Hindi language. The authoritative texts of reported judgments of the Supreme Court will also be published in the same language.
36. Processes issued in Hindi by the Supreme Court, when addressed to a non-Hindi region or against a person whose mother-tongue is not Hindi, should be accompanied by a translation for the convenience of the concerned party.
37. Provision should also be made for reliable translations of Supreme Court decisions being available in the State languages in separate regional language series.
38. The pros and cons of the regional and Hindi languages are carefully examined so far as the linguistic medium of the High Court is concerned. There are several strong and, in our opinion, conclusive
- With the previous consent of the President the official language of the State or Hindi may be used in proceedings in the

1	2	3	1	2	3
		reasons in favour of deciding that when the time for the changeover arrives, the language of the judgments, decrees and orders of the High Courts must be a common linguistic medium for the whole country and therefore, these should be in the Hindi language in all regions.			This may be accepted.
39.	Since subordinate courts are guided by the determination of law given in the High Court judgments, there will have to be translations into the respective regional languages of all reportable High Court judgments. It would be necessary, in our opinion, to ensure that these translations are sufficiently reliable and we could suggest, for consideration by the concerned authorities at the material time, that a "translation unit" may be established in each High Court for such translation of judgments.	High Court under clause (2) of Article 348, but judgments, decrees and orders passed by High Courts have to be in the English language. The Committee is of the opinion that the President may be pleased to give his sanction to the introduction of a Bill in Parliament providing for the use optionally of Hindi and other official languages of States for purposes of judgments, decrees and orders also, with the previous consent of the President. Judgments, decrees and orders which are made in a language other than English, should be accompanied by a translation in the English language. All reportable judgments and orders should be translated also into the Hindi language.	41.	As in all other such cases, so in regard to the language of the law courts, we consider it important to concentrate on bringing about the general changeover in the linguistic medium for the system as a whole. Wherever it is necessary to make individual exceptions for a good reason, e.g., in order that we may continue to enjoy or to secure afresh the services of suitable personnel for the posts of judges in the Supreme Court and the several High Courts, dispensation as to the language should be readily granted. It may be that for a long time after such a general changeover in the language of the judiciary has taken place, there would still be individual judges, who would prefer to deliver their judgments in English. Such individuals must be accommodated.	
40.	So far as the processes, decrees and orders of High Courts are concerned, we would suggest that, wherever necessary, it may be provided that they would issue in regional languages in their 'authorised translations', in addition, to their original issue in Hindi.	The Committee has already expressed its opinion as regards the language of decrees and orders under Serial 38. So far as processes are concerned, they may be in the regional language with a translation in the Union language.	42.	Having regard to the recommendations made by the States Reorganisation Commission regarding transfer of High Court Judges and the proposals about a single judicial service, it might be worth considering whether certain minimum language tests in appropriate regional languages and Hindi should not be adopted in the case of High Court Judges.	The Committee does not consider it appropriate to prescribe language tests for High Court Judges. It is, however, appreciated that a knowledge of Hindi and the official language of the State in which High Court is situated will be useful to Judges. Vide opinion on Serial 38.
			43.	Apart from the option of delivering judgments in English, there may be an option to High Court Judges to deliver judgments in their regional languages provided English or Hindi translations of such judgments are authenticated by them.	
			44.	Provision may be made for granting leave by presiding	This may be accepted.

1	2	3	1	2	3
judges to counsel, in suitable cases, to argue in English in the Supreme Court and in English or the regional languages in the several High Courts even after the general changeover in the linguistic medium has taken place.			legislation and administration of justice:		sary to constitute a Standing Commission or a similar high level body consisting of legal experts representing the different national languages of India for proper planning and implementation of the entire programme relating to translation of statutes and preparation of legal terminology and glossaries. It is felt that in so far as the question of translation of State Statutes into the official languages of the States are concerned, the State Governments might be advised to take necessary measures in consultation with the concerned Central authorities.
45. We would recommend, for consideration by the States concerned at the appropriate time, the making of a provision (at any rate) at the district levels, whereunder it would be open to parties or counsel to resort to the Hindi language at their option. We expect that this would be particularly necessary in larger towns; but if it is found necessary at lower levels as well, the principle ought to be extended.	The language of Courts subordinate to High Courts is not regulated by article 348. This recommendation is, therefore, not covered by the terms of reference.		(i) The preparation of a standard legal lexicon;		
46. So far as the language of special tribunals is concerned, wherever their decisions or orders have a bearing not confined to a single region, it should be prescribed that their judgments and orders shall be delivered originally in Hindi. A translation into another language may be made available to the parties where necessary. As in the case of High Courts, we would envisage the English language being allowed to be used as the language of the judgment or order by individual judges of such special tribunals for a considerable transitional period.	This may be accepted.		(ii) Re-enactment of the statute book in Hindi in respect of both the Central and State legislation		
			48. So far as evolving of legal terminology is concerned, it seems to us necessary to adopt the following plan of action and to carry it out as rapidly as possible:		
			(1) The present pace of evolving the necessary terminology for the Indian languages in the field of law must be greatly accelerated.		
			(2) Steps must be taken for the publication, from time to time as they get ready, of glossaries of such terminology, as standard and recognised expressions under the 'imprimatur' of a suitable authority.		
			(3) A rendering of the statute-book, both Central and State, into Hindi must be projected under the auspices of the Centre. It should be decided as to whether such Hindi versions of the law should not be enacted afresh by the appropriate legislative authority; precise arrangements in this behalf and a programme of action in respect of the Central as well as the State laws should be settled and pursued.		
			49. In order that original drafting may commence being attempted in Hindi by persons competent to do so and drafting practices gradually develop in		These recommendations may be accepted.
Chapter XI	Language Of Law And Law Courts—III	The Dynamics Of The Changeover			
47. The following preliminaries appear to us to be prerequisite to the accomplishment of a changeover of the linguistic medium in the fields of	The Committee agrees with these recommendations, and considers that it would be neces-				

Chapter XI

Language Of Law And Law Courts—III

The Dynamics Of The Changeover

47. The following preliminaries appear to us to be prerequisite to the accomplishment of a changeover of the linguistic medium in the fields of [The Committee agrees with these recommendations, and considers that it would be necessary to take the following steps to facilitate such a changeover]

49. In order that original drafting may commence being attempted in Hindi by persons competent to do so and drafting practices gradually develop in

These recommendations may be accepted.

1	2	3
		<p>that linguistic medium, it seems to us necessary to allow those States, who may want to do so, to undertake authoritative enactment originally in Hindi itself.</p> <p>50. We envisage a transitional period of time during which the Statute Book as well as the case law would be partially in Hindi and in English, the Hindi language progressively assuming a larger proportion of the whole. During such a transitional period, resort may be had to the device of texts being made available in both Hindi and the English language, one of them being the original text for purposes of the law and the other an authorised translation.</p>
		<p>53. If in view of this, English has to be displaced partly or wholly as the medium for these examinations, it might be necessary to introduce regional language media in place of English, as secondary education in most parts of the country has now switched over from the English language medium to the medium of the regional language. This might entail a region-wise decentralisation of the entrance examination and, consequentially, a quota system. There are, however, very important distinctions between the adoption of the quota system for admission to training establishments and the adoption of such a system for purposes of actual recruitment to all-India services at the highest level of the administrative cadres, where the issue arises.</p> <p>54. Having regard to the linguistic abilities that would be needed by members of the All-India and the Central Services in the future it would be legitimate in our view to introduce a compulsory paper in Hindi after due notice. In order that non-Hindi students may not be unduly handicapped in the transitional period, the paper may, to start with, be of a fairly low standard and treated as only a 'qualifying paper' and later on after due notice again it may be raised to the status of other compulsory papers as a 'marking' and fully competitive paper. Further, candidates having one of the South Indian languages as mother-tongue may be exempted from answering one or two stiffer questions in the Hindi paper which the candidates whose mother-tongues are closer to Hindi</p>

Chapter XII

The Union Language And Public Services Examinations

51.	For obvious reasons the linguistic media of the competitive examinations should be generally in keeping with the media of instruction in the educational system.	This recommendation may be dropped.	As regards competitive examinations for the all-India and the higher Central Services the Committee considers:
52.	It seems there has not been yet an overhaul of the linguistic media of instruction in some of the training establishments; and probably most of such training continues to be in English, although it may be susceptible of replacement, to more or less extent, by the Hindi medium. Such a review should be made, and steps taken for the language media for the appropriate entrance examinations, being related on the one hand to the medium of instruction in the different training institutions, and conforming on the other to the changes in the system of secondary education taking place in the country.	<p>For some time, it will be necessary to continue English as the medium of instruction in the training establishments to which a reference has been made in the Commission's report. Suitable steps should, however, be taken to introduce Hindi as a medium for all or some of the purposes of instruction.</p> <p>So far as the medium of examination for entrance to these training</p>	<p>(i) English should continue to be the medium of examinations, and Hindi may be admitted as an alternative medium after sometime and both Hindi and English should be available as alternative media at the option of the candidates for as long as necessary.</p> <p>(ii) After due notice, there</p>

1	2	3	1	2	3
			should be two compulsory language papers of equal standard, one in Hindi, and another in a modern Indian language other than Hindi to be selected by the candidate.		A quota system would break up the character of the existing all-India services and would lead to a fragmentation of the all-India competition and to deterioration in the quality of recruits to the all-India as well as the higher Central Services. Considering the present-day calls on the administrative personnel, we would strongly discountenance proposals leading to any such deterioration in the quality of the recruits to these services. In the case of the personnel of the all-India services, the chief consideration even from the point of view of each region exclusively regarding its own interest should be 'quality' and not proportionate share in the volume of employment. For like reasons quality is more important in the case of the higher Central Services as well than a proportionate region-wise distribution of the employment available.
55.	To equate the Hindi candidates with the non-Hindi candidates, the former should be required to offer a paper, to be answered in their linguistic medium of the general examination, out of a variety of options including subjects of cultural interest bearing on South India and languages of the English Schedule other than Hindi.		(iii) There should be a compulsory paper in the English language even after the medium of examination is changed till English is completely replaced by Hindi for all official purposes.		On the subject of the linguistic medium of the competitive examination for these services we, therefore, conclude as under:
56.	We do not see sufficient justification for the suggestion that the 'compensatory provision' for Hindi candidates should be that they must offer a paper in a regional language (or a South Indian language) other than Hindi.		(iv) A expert committee should be appointed to examine the feasibility of introducing the regional languages as media without bringing in a quota system.		(a) So far as the all-India and Central Services are concerned (and this would apply, unless otherwise provided, also to other all-India services created hereafter), the alternative of the Hindi medium in addition to the existing English medium may be introduced after due notice. As and when other regional languages become a medium of instruction in the universities up to graduation stage as Hindi has done, the admission of other linguistic media will have to
57.	Provision may be made for testing candidates for the all-India services examinations in English through specific papers even after the medium of the examination is changed to a different language or languages.				
58.	As regards the language medium for the combined competitive examination through which candidates are recruited for the all-India and the higher Central Services, the principal difficulty arises out of the fact that for obvious reasons it will be <i>prima facie</i> extremely difficult to attain satisfactory standards of 'moderation' if the competition is held in linguistic medium anything as numerous as the thirteen regional languages. If the number of linguistic media for the examination exceeds the limits of manageability with reference to satisfactory standards of moderation, quota system may become inevitable unless the character of the examination itself is changed.				

1	2	3	1	2	3
			contemplated in (b) above eventuate, the progress of Hindi amongst non-Hindi speaking University graduates generally would have advanced sufficiently to admit of their competing on equal terms with Hindi-speaking candidates at these examinations through the medium of the Hindi language: And until then, the availability of the English medium would give to such of the non-Hindi-speaking candidates as may need it an alternative sufficient to safeguard their legitimate interests: Some of us entertain the hope that it would not, in the upshot, be necessary for the Union and State Governments to make the difficult choice presented by the alternatives in the last sub-paragraph of item (b) above.		
(b)	be considered. Suitable standards will have to be laid down as to what degree of progress as a medium should have been made in university education in respect of any language before its eligibility as a linguistic medium for the competitive examination for recruitment to these services may be considered. The medium of the English language may be continued as an alternative for as long as may be necessary; if, eventually, a position should arise when this alternative could be dispensed with, such dispensation should of course be made after a sufficiently long notice.				
	(b) While 'moderation' might still be practicable so long as the number of linguistic media is manageable, having regard to the availability of examiners with suitable bilingual or multi-lingual qualifications, a stage might arrive when the admission of further linguistic media would be found impracticable. Before such a stage is reached the Union and State Governments must take mutual counsel and decide whether, (1) they would accept a change in the scheme of recruitment to the all-India services or, in the alternative, (2) agree upon a limitation in the number of the linguistic media, or (3) make other appropriate changes in the system of the examination.		59. As a measure of general encouragement to linguistic studies so badly needed in the special circumstances of this country, the concerned authorities should revise the list of optional subjects tenderable at the various Public Service Commission examinations and consider whether greater scope should not be allowed for the subjects of languages and literatures in the different Indian languages.	This may be accepted.	
(c)	We hope and trust that before the contingencies				

Chapter XIII

Propagation And Development Of Hindi And Regional Languages

60. Since the adoption of the Indian Constitution, this country has assumed a different aspect and it is now necessary that the respectability of 'spuriously' created languages

1	2	3	1	2	3
61.	From what we have seen of the working of voluntary agencies in this field, it appears to us that steps ought to be taken in the following directions for the more systematic organisation and expansion of the work of propagation of Hindi:	This may be accepted. It is felt that publication of some Hindi books in regional scripts would facilitate the learning of Hindi by adults in non-Hindi regions.		children, women, etc.	
	(1) Coordination of work among the various agencies, and where necessary demarcation of their activities.		(6)	Ancillary to the propagation of the Hindi language the provision of reading room and library facilities for those recently made literate in Hindi.	
	(2) Survey of their requirements for the purpose of adequate expansion of their allotted fields of activity.		62.	We recommend that the Central Government should make liberal financial assistance available to the voluntary agencies for enlarging and improving their activities in the various ways referred to above.	This may be accepted.
	(3) The introduction of some measure of uniformity and comparability in standards of their examinations; and ensuring that proper methods are adopted and appropriate academic standards maintained in the conduct of the examinations.		63.	A greater and growing rapprochement amongst the various Indian languages and a wider understanding and comprehension of the varied cultural inheritance of India would be promoted by the encouragement of studies in the field of linguistic and philology; and such studies and research deserve every encouragement at the hands of the Union and State Governments.	This may be accepted. It is felt that encouragement should be given also to studies in the field of Indian literature.
	(4) Provision of aids for improvement of teaching methods and greater facilities for teachers' training.				
	(5) Securing an appropriate and graded supply of suitable text books for the different regions of the country and for different categories of persons receiving Hindi instruction; supply of supporting reading matter and literature for the benefit of neo-literates and special classes of pupils, like				

Reform Of The Devanagari Script

64. It is urgently necessary to finalise the type-writer keyboard and authoritatively adopt reforms to be made in the Devanagari script which can only be done on the leadership and under the auspices of the Centre.
- The Committee agrees with this recommendation, and considers that early steps should be taken to resolve the differences that have arisen lately over the decisions taken at the Lucknow Conference, 1953, regarding reform of the Devanagari script.

WORKING GROUP ON INDUSTRIAL COOPERATIVES

1957—REPORT

New Delhi, Ministry of Commerce and Industry, 1958. 254p.

Chairman : Shri M.R. Bhidc (resigned replaced by Shri J.C. Ryan).

Members : Shri M.P. Bhargava; Shri V. Subramanian; Shri H.D. Shourie; Shri L.C. Jain; Shri P.M. Mathai; Dr. D.K. Malhotra; Shri K. Subrahmanyam Nayudu; Shri M.M. Vadi.

Secretary : Shri K.P. Parameswaran.

APPOINTMENT

Village and small scale industries have been assigned an important place in the Second Five-Year Plan and Rs. 200 crores have been allocated for their development. Six All-India Boards viz., the Khadi and Village Industries Board, the All-India Handicrafts Board, the Handloom Board, the Small Scale Industries Board, the Central Silk Board and the Coir Board have been established to deal with their problems, as a result of which considerable increase in production and employment has already been achieved. In order to coordinate the activities of these Boards, in relation to functions, policy and finance, a "Coordination Committee of Small Industries" has been set up in the Ministry of Commerce and Industry. This Committee, presided over by the Minister for Commerce and Industry, at its first meeting held on June 8, 1957, decided to constitute a Working Group "to examine the question of development of industrial cooperatives during the period of the Second Plan". The Government of India, in its communication No. AC-II/(2)/57-Coord., dated September 11, 1957 appointed the Working Group on Industrial Cooperatives.

TERMS OF REFERENCE

(i) To review the progress of industrial cooperatives for village and small-scale industries;

(ii) Examine the difficulties impeding the rapid progress of the formation of industrial cooperatives, including those connected with the registration and supervision of such societies;

(iii) Examine the financial, organisational, and marketing difficulties of industrial cooperatives; and

(iv) Recommend measures for ensuring accelerated development of industrial cooperatives with special reference to the objectives and programmes of the Second Five-Year Plan.

CONTENTS

Introductory; Cottage and Small Scale Industries; Industrial Cooperatives in India—Present Position and Organisational Problems; Raw Material and Equipment; Provision of Credit; Marketing; Training and Education; Administration; Other Related Matters; Summary of Recommendations; Appendices from A to N.

RECOMMENDATIONS

I. Organisational Problems

The members of a cooperative production society should be enrolled with reference to their skill in the manufacture of the products which the society intends to produce and should be drawn from a compact area such as a town or a group of villages.

Normally, there ought to be a separate society for each industry or craft. If, in any case, two or more industries or crafts are to be combined in one society, it should be carefully examined whether the members will have a community of interest and whether there is scope for the success of the society.

In the case of industrial cooperatives in which the worker members may not be able to provide leadership, capital, managerial ability or outside influence in the measure necessary for success, it is desirable that a few non-workers should be admitted into the society as members but their number should be restricted to 10 per cent of the total number of members and care should be taken to see that such "sympathisers" are genuinely interested in the workers' welfare.

There should be no objection to the conversion of a proprietary concern into an industrial cooperative society provided the entrepreneur and the workers join the proposed society as members and entrepreneur is not given any special privileges in the society and is entitled to only one vote and a reasonable remuneration and bonus for services rendered. Before the registration of such a society the Registrar should educate the member workers in their rights in the society so that their interests are not subordinated to those of the entrepreneur.

There should be no objection to the registration of an industrial cooperative society of small entrepreneurs provided (i) that the workers employed by each entrepreneur are also admitted as its members, and (ii) that no entrepreneur member employs more than 10 workers.

Additional workers required to complete the execution of an order by an industrial society as also apprentices, including minors, may be enrolled as associate members with a nominal share each but with no other rights in the society than that for wages and bonus on wages. Suitable provision may be made for this purpose in the cooperative law in force in each State.

When purchases of raw materials and sales of manufactured products increase in a production or service society, the suppliers and customers may be brought into the society as nominal members with nominal shares but without any rights in the society.

The procedure according to which loans are being provided for handloom weavers with a view to enabling them to take shares in a weavers cooperative society may be adopted by the Government in respect of all industrial cooperative societies.

Where, for the successful conduct of their business, industrial cooperative societies need more owned capital than what can be raised as share capital from members, the State Governments may contribute to the reserve fund of the society the required amount as foundation money.

The practice, according to which the Central Government, through the All India Handloom Board, provides State Governments with loans for contribution to the share capital of open weavers societies may be adopted in respect of the industries dealt with by the other Boards. An apex industrial society should also be entitled to receive a grant from the Government towards contribution to its reserve fund.

The Board of Directors of an industrial society should ordinarily be elected by its members from among themselves and the President should be elected by the Directors from among themselves. Separate representation may be given on the Board to sympathisers to the extent of not more than about 25 per cent of the total number of Directors.

It would not be proper to let the Registrar of Cooperative Societies nominate more than a-third of the Board of Directors, including the President of the Society, if necessary, for the first three years. In exceptional cases, the entire Board may be nominated for the first three years with the special sanction of Government.

The Board of Directors should be assisted by a competent manager and adequate staff. Where, with the help of a Government subsidy, the services of experienced men can be secured by the society from business organisations, Government should provide the subsidy for a limited period on a sliding scale.

The practice obtaining in some States of deputing experienced officers of the Cooperative Department to work as the managers of industrial cooperatives on foreign service terms under the direction and control

of the Board of Directors of the societies, for a period of three years at a time, may be adopted, wherever necessary. Where a society cannot afford to pay for the services of such a manager, he may be deputed initially free of cost but within a period which should be specified, it should bear his entire cost on a graduated scale. During the period of deputation of such an officer, no contribution towards pension and leave salary should be collected from the society. Nor should the officer be transferred by the Department to other work during the period of his Deputation. Further, during this period, the society should train some one to take the place of the deputed officer in due course.

The manager and every member of the administrative staff of an industrial cooperative society should be eligible for its membership.

No industrial cooperative society should be registered without an on-the-spot study of its prospects of success. Such a study should find out particulars regarding (i) the market for the article to be produced, (ii) the availability of the raw materials needed, (iii) the availability of transport facilities, (iv) the need for and the availability of financial resources, (v) the cost of production per unit, (vi) the price at which the products can be sold and the margin of profit it will give, and (vii) the performance of other units of the same industry in the neighbourhood, etc. It should be examined whether the net profits of the society will be sufficient to set apart reserves, declare a dividend of at least three per cent on the share capital and a bonus of three per cent on wages after paying off instalments on loans, interest charges, rates and taxes, etc. and providing for depreciation. If the study reveals that the society will not pay its way for many years to come, say, even beyond four years, the society should not be registered.

In the case of industries which are being supported with subsidies in view of their importance from the point of view of providing employment, such subsidies should be taken into account in the on-the-spot study suggested. Even in their case, the society should not be registered if, in spite of the subsidies, the society will not pay its way year after year.

The Departments of Industries and Cooperation should study the technical and commercial aspects of the production of selected items of light engineering goods, electrical goods and goods needed by the building industry, and take steps to organise industrial cooperatives for the production of such items as offer prospects of business success. The Central and State Governments might secure large orders for these selected items from the railways and other State industrial enterprises and distribute them among the industrial cooperatives organised, for being executed according to specifications under competent supervision.

Industrial cooperative societies for other lines of business should also be supported where they exist and more such societies should be organised wherever there is a demand and the prospects of success are good. They should also be given all the aids recommended.

A relaxation of the maximum borrowing limit fixed at eight times the paid-up share capital and reserve fund of an industrial cooperative society is likely to lead to overtrading and losses. However, the various measures recommended for giving the society adequate owned funds are likely to provide it with a sufficient basis on which to borrow up to its needs. Further, loans given on the pledge of raw materials and finished products may be excluded from the maximum borrowing limit of eight times the owned funds.

The members of industrial cooperatives should be educated in the correct appreciation of their relationship with the society and their rights and duties. They should not seek outside interference but should govern their workshop by themselves.

The several types of assistance recommended for industrial cooperatives may be expected not only to stimulate the formation of a large number of cooperative societies in the sphere of cottage and small-scale industries but also to lead to the conversion of industrial units, which at present function otherwise than on a cooperative basis, into cooperative societies. Such conversions should be welcomed and encouraged, care being taken to see that the societies which are formed conform to cooperative principles. Further, the different types of assistance now being offered to cottage and small industries by Government should be channelled in an increasing measure through cooperative societies.

Every State should have a cooperative apex marketing society for industrial goods which will be both a business and promotional body. Every industrial cooperative society in the State should take shares in it. The Government should also take shares in it up to three times the capital subscribed by the societies and, in any case, not less than Rs. 10 lakhs for a State of the size and industrial prospects as Madras, Mysore, Punjab or West Bengal.

The functions of the apex society should be to (i) supply raw materials and equipment to member societies for cash; (ii) take over their finished products for sale on consignment basis or on an outright purchase and sale system, (iii) obtain orders from Government, Railways, large industrial firms, etc., and arrange for their production and delivery by the affiliated societies on a sub-contract system; (iv) recommend loans and advances to banks for industrial societies and, if necessary, to guarantee their repayment; and (v) run a research and publicity section.

The apex marketing society should open a branch with a godown-cum-sales depot at the headquarters of

the State as well as at the headquarters of each district. The raw materials and equipment in demand from members should be stocked in the godown for sale on cash basis. The finished products of the members should be received at the sales depots, displayed suitably and sold to the public for cash. Each godown-cum-sales depot should be in-charge of a branch manager, assisted by an office and field staff.

Each branch should have an Advisory Committee, nominated for three years at a time by the Board of Management of the apex society and consisting of three representatives from the member societies in the district and one from the District Cooperative Bank, one from the Industrial Cooperative Bank, if any, and one each from the departments of Industries and cooperation in the State and the Small Industries Service Institute of the Central Government.

The management of the apex society should vest in a Board consisting of (i) one or two representatives from the member societies of each district; (ii) three directors nominated by the State Government, who should be Registrar of Cooperative Societies, Director of Industries and the Finance Secretary; (iii) the Director of the Small Industries Service Institute in the State; and (iv) a nominee of the National Small Industries Corporation. The president of the apex society should be elected by the members of the Board from among themselves.

While this Board may meet not more than once a quarter, an Executive Committee, consisting of the President, two directors representing industrial cooperatives and two other official directors, should carry on the business of the apex society, meeting once a month or more often if necessary.

The general body of the apex society consisting of one representative from every affiliated society and of the directors of the apex society will be the ultimate authority of the society.

Loan applications of affiliated industrial societies should be made to the branch manager who will place them before the Advisory Committee, which will take a decision as to the grant of the loan, and forward the application to the bank, whose representative on the Advisory Committee agrees to finance the society.

Where the lending bank asks for a guarantee, it should be given by the branch manager with the approval of the Advisory Committee up to a limit for which the Board of Management of the apex society have given him powers. Beyond that limit, the guarantee should be given by the Board of Management itself on the recommendation of the Advisory Committee.

Government should provide the apex society with a guarantee fund, by making a grant which might be about Rs. 10 lakhs initially and Rs. five lakhs during each of the next four years, depending upon the size of the State and opportunities for development of industrial cooperatives.

This guarantee fund should be invested by the apex society separately in trustee securities, and should not be drawn upon except with the consent of the Trustee appointed by the Government from among its nominees on the Board of Management of the apex society. The guarantee fund should be allowed to be drawn upon by the Trustee only to the extent of a percentage of the guarantee enforced against the apex society. This percentage should be as large as 75 per cent during the first five years, at the end of which period the Government may review the situation and reduce the percentage.

The running costs of the apex society should be borne by Government for the first five years in the case of the establishment at the headquarters. As regards the branches, its costs to Government may be reduced on a sliding scale over a period of eight years. In the interests of speedy development, a good part of the Government subsidy should come from the Central Government.

In the first five years of the working of the apex society, one half of the net profits and the entire dividend on Government share capital should be contributed to the reserve fund of the society.

Indirect aids from Government to industrial cooperatives recommended in this report—statutory, administrative and fiscal—should all be available to the apex societies also.

Existing apex weavers' societies should remain distinct and, where a common apex industrial society is now dealing with all varieties of industries including handloom weaving, the latter should be separated and a separate apex society established for weavers' cooperatives. Similarly, apex coir societies and federations of cooperative societies of village industries which are functioning well should be allowed to continue. There should be no regimenting of industrial cooperatives into the apex marketing society recommended by us though every society which wishes to join it should be free to do so.

A review of the working of the existing federations of industrial cooperatives may be undertaken in each State. Wherever the existing institutions are working on sound lines and may, therefore, be retained in their present form, such institutions may be allowed to continue and the aids recommended for the apex societies may, generally, be extended to them. A similar review may also be undertaken in the case of the existing district or regional organisations with a view to determining whether they could be suitably integrated with the proposed apex marketing society by affiliation.

II. Raw Material And Equipment

The supply of yarn to primary weavers' societies may be undertaken by apex weavers' societies in all the States and every endeavour may be made to ensure such supply at reasonable prices through wholesale purchase and

economy in distribution costs.

Apex weavers' societies should follow the generally accepted cooperative principle of "sale at market price" and supply yarn to affiliated societies at the prevailing market price.

Apex weavers' societies may build up specific reserves to meet losses, if any, on yarn trade, carrying, if necessary, part of their profits on this business to such reserves.

The Central Government may actively assist State Governments with loans and grants, import licences etc., for establishing cooperative spinning mills at all important centres.

A review may be made of the current allocation of iron and steel and other commodities under control as between the several sectors or agencies and, with due regard to the increasing importance of small scale industries in our economy, their quota may be increased. Further, as an incentive towards organised effort, industrial cooperatives may be shown special consideration, including preference in special circumstances.

The import of raw silk may be liberalised so as to enable the level of employment to be maintained in the section of the silk-weaving industry in which imported raw silk is exclusively used.

When raw material is to be imported, special licences should be issued for the purchase of such material to industrial cooperatives on a preferential basis. In case an apex body is able and willing to import the material direct, Government should issue import licences to it direct.

Where raw material is in short supply and is controlled by Government, industrial cooperatives should be registered for quotas on a preferential basis and their demands met with due regard to the availability of the material in the country. The services of apex bodies should be utilised in the distribution of controlled commodities such as iron, steel, cement, etc.

Wherever Government has control over the release and distribution of raw material for public use, some preferential treatment in price etc., may be given to industrial cooperatives for a prescribed period.

Industrial cooperatives should be advanced loans on a liberal basis, for the seasonal purchase of raw materials and their stocking for distribution during the off-season.

Government may consider the question of providing loans and subsidies to large-sized industrial cooperatives for the construction of godowns for storage of raw material and finished goods in the same manner as the marketing cooperatives are assisted for the purpose.

The existing arrangements for the supply of equipment, machinery and tools to industrial cooperatives by the various All-India Boards, etc., should be continued and the following additional facilities should be

provided : (i) Industrial cooperatives should be given preference in the matter of supply of machinery imported or in short supply within the country. (ii) In cases where the financial resources of a cooperative society do not permit immediate payment for machinery or equipment needed by it, the All-India Board or the State Government concerned should provide the necessary funds on a medium-term or long-term basis. (iii) In cases where machinery has to be imported, the apex industrial society or a primary society may be allowed to get it on a priority basis.

III. Provision Of Credit

The Reserve Bank of India may, in addition to these industries already selected for study, undertake the study of three more industries viz., those producing light engineering goods, electrical goods and goods needed by the housing industry with a view to financing them.

Every endeavour should be made, as early as possible, to place the financing of industrial cooperatives on an institutional footing. As the transition to institutional financing will be a slow and difficult process, Government should take the following steps so as to inspire confidence among the institutional financing agencies and improve their readiness to finance industrial cooperative societies.

(a) The many sided programme for the development of cottage and small scale industries should be pressed forward with a sense of urgency so as to make the prospects of their stability and survival demonstrably bright.

(b) Technical and supervisory staff should be provided at the cost of Government for the financing institutions for the first two or three years or the services of such staff employed by Government should be made available to them.

(c) Initially, to provide such experience to these banks as would help them understand and deal with small industrial units and their problems better, the funds intended to be provided by Government to industrial societies may, as a rule, be routed through the banks under suitable conditions.

(d) Government should provide such financial aids as loans for contribution to share capital, reserve fund grants, etc., to strengthen the owned funds of the industrial cooperatives and other financial aids necessary for making the structure of these societies stronger.

Ordinarily, it is to a Central Cooperative Bank that an industrial cooperative society should turn for its credit requirements. In order to ensure an increasingly active role on the part of cooperative banks in meeting the credit requirements of the industrial cooperatives, the following steps should be taken :

(i) There should be suitable representation for in-

dustrial cooperatives on the boards of management of cooperative central banks with due regard to their number and importance in the cooperative economy of the district or the region served by such banks.

(ii) An industrial sub-committee consisting of the President and three or four directors, including one or two representatives of industrial cooperatives and the nominees of the administrative department of the State Government which is concerned with industrial cooperatives, may be constituted to deal with all matters relating to industrial cooperatives, including the disposal of their loan applications. The sub-committee would act in an advisory and recommendatory capacity. Any special staff which a Central Cooperative Bank may employ for these societies, may work under the control and direction of this sub-committee. An annual report may be sent by this sub-committee to the Board of the central bank which may be incorporated in the bank's annual report together with such remarks as the Board may wish to make.

(iii) Central cooperative banks may, in consultation with the appropriate departments of Governments concerned, make an annual estimate of the probable financial requirements of industrial cooperatives in their jurisdiction and earmark part of their funds for these societies.

(iv) The Government should extend guarantees to financial agencies in particular circumstances or in the case of particular industries, as may be necessary, for a specified period of time.

(v) Wherever there is a fairly good concentration of industrial cooperatives in the jurisdiction of a central cooperative bank, the latter may employ a suitable person as deputy manager or deputy secretary to attend to matters connected with industrial cooperatives.

(vi) For the first three years, Government may help the bank with subsidies to meet the cost of this officer. Similar subsidies may be made available, on a sliding scale, towards the cost of the executive staff which the central bank may employ for the supervision of industrial cooperatives in its jurisdiction.

(vii) Whenever cooperative central banks require the services of the technical departments of Government, State or Central, which are interested in the promotion of cottage and small-scale industries, for scrutiny of loan applications, etc., the respective departments should place the services of such personnel at their disposal.

Wherever cooperative banks are not, for one reason or another, in a position to finance the industrial cooperatives, they may be financed by the State Bank of India.

The officers of the State Bank of India should be invited to attend and participate at the meetings of the organisations connected with the promotion of industrial

cooperatives.

All the facilities, guarantees or help which have been proposed for cooperative banks, may, wherever necessary or justified, be extended to the State Bank of India in the initial stage.

With the resources of the State Financial Corporations, current and potential, they should reorient their policies and procedures, so that it may be possible for industrial cooperatives to obtain, in an expanding measure, their requirements of block capital from these Corporations.

In view of the servicing costs involved, the State Financial Corporations may not be interested in providing small loans or loans below a prescribed limit. In such cases, the Government may continue to provide medium or long-term loans.

An arrangement may, by agreement, be worked out by which the State Bank of India or the central cooperative bank which provides working capital to an industrial cooperative, also acts as an agent of the State Financial Corporation in so far as its medium-term or long-term loans are concerned.

Appropriate changes may be made in the constitution of the Boards of Directors of the Corporations so as to include a representative, where necessary, of industrial cooperatives, or a nominee of the department of the State Government dealing with industrial cooperatives or of the apex marketing society.

Steps may be taken so that the requirements of security demanded by the State Financial Corporations can be met, initially, by the provision of a guarantee by the State Government or by an apex marketing society of industrial cooperatives until the society get well established and the Corporations have gained sufficient experience in this line.

All the help, facilities and concessions recommended by us elsewhere for cooperative and other financing agencies, should be extended also to the existing industrial cooperative banks.

In areas where the credit needs of industrial cooperatives can be met adequately only by setting up industrial cooperative banks and where conditions favourable to their successful working exist, such banks may be established. In such cases, the decision to set up an industrial cooperative bank should be preceded by a careful examination of all the relevant factors, especially the following: (a) whether there is a large concentration of industrial units organised on cooperative basis in the locality to provide the bank with adequate share capital and adequate business; (b) whether there is a large potential for the growth of industrial cooperatives in the area; (c) whether the credit needs are not, or cannot be, met adequately by the existing financial agencies, and (d) whether the new bank will be in a position to attract deposits.

Some members of the Group were strongly of the view that industrial cooperative banks should, in deserving cases, be eligible for State partnership.

With funds becoming available to industrial societies from banks, apex weavers' societies, district industrial associations, etc., should give up the practice of combination trading with banking by supplying goods on credit.

In case of Government loans for working capital repayable in annual instalments over a period of years, no repayment should be demanded for the first two years and the loan may be made repayable in a period of 10 to 15 years, the first instalment being due at the end of the third or fourth year as the case may be. Besides, a further loan may be provided to a society in those circumstances where the payment of the instalment is likely to result in the shrinkage of its business.

The pattern of assistance for schemes connected with cooperative societies of cottage and small scale industries should not be made less liberal during the remaining period of the Second Five-Year Plan and a review may, if necessary, be undertaken at the end of this period.

Separate rules may be made in the States for advancing loans to industrial cooperatives under the State Aid to Industries Act.

The terms and conditions relating to the provision of loans to industrial cooperatives of scheduled castes and scheduled tribes should be liberalized to the maximum extent possible and this and other types of assistance recommended for industrial cooperatives should be extended generously to societies serving these sections of the population.

Where Government funds are provided the rate of interest on the loan should in no case exceed three per cent to industrial cooperatives.

Where Government funds are routed through cooperative or commercial banks or corporations, or these institutions provide such loans out of their own resources, Government may provide an appropriate subsidy to enable these banks to advance funds to the industrial cooperative societies at the rate of three per cent.

The concessional rate of interest recommended may initially be provided for a five-year period at the end of which the position may be reviewed.

As a rule, the State cooperative bank may be permitted a margin of one per cent and the Central cooperative bank, a margin of two per cent. While the margins should be sufficiently liberal in the immediate future so as to enable the banks to employ extra administrative and supervisory staff, create adequate reserves, etc., the position may be reviewed after five years.

The existing arrangements for the sharing of losses sustained by cooperative financing agencies in respect of their loans to cooperative societies for handloom weaving and small scale industries, may be adopted in respect of the financing of cooperatives of other industries as

well.

In cases where guarantees against losses are given, they should be guarantees enforceable on losses ascertained at the end of every two or three years as may be agreed upon at the time the guarantee is given and there should be no avoidable delay in reimbursing the banks.

The following general considerations should govern the policy in respect of security for loans to small scale and cottage industries:

(i) Central cooperative banks may ordinarily provide clean accommodation to an industrial cooperative society to the extent of its owned funds. (ii) An industrial cooperative society should also be normally entitled to accommodation on the pledge of stocks of raw material, and finished goods held in a godown under the bank's lock and key. (iii) Where a society does not have adequate owned funds to merit a clean loan or sufficient stocks to obtain a pledge loan or does not find it convenient to pledge stocks to raise the funds it needs, certain special arrangements may be devised, e.g., the bank may make what is known as a "factory type" of advance. (iv) Where this type of arrangement is not possible accommodation might be provided against the security of fixed assets to be mortgaged, even though advances may be for working capital purposes. (v) Where even this cannot be done, banks may consider the possibility of financing the societies against a floating charge on all their assets. (vi) Advances against railway receipts in respect of goods despatched to such purchasers as Government, etc. may be allowed. (vii) Cooperative banks may, to the extent possible, undertake to provide industrial societies with those facilities which commercial banks ordinarily extend to their clients who are exporters.

The following precaution may generally be taken in financing industrial societies:

(a) It should generally be ensured that the borrowing society has a satisfactory past record, that it has an able and honest management, that it is technically competent to produce goods to specifications and, above all, that the goods are readily marketable. (b) The stocks of raw material purchased with the loan may be taken as pledge, to the extent possible. (c) Where feasible, advances made for the purchase of raw materials may be effected in the form of payments to the suppliers of raw materials. (d) For the liquidation of the dues to the bank, it may be arranged if practicable, that the purchasers of finished products should make their payments to the bank direct.

The purchasing departments of Government, both in the States and at the Centre, should make every endeavour to settle expeditiously, the bills for goods supplied to them by industrial cooperatives.

The Government should arrange for a speedy settlement of all the claims of weavers' societies and other

cooperatives which are entitled to the reimbursement of rebate.

A concerted drive should be organised for promoting thrift and collecting savings from individual members of industrial cooperative societies.

IV. Marketing

Standardisation schemes should be drawn up and enforced by the departments of Government concerned, with the help of the Indian Standards Institution, at least in respect of the major products of cottage and small scale industries.

Arrangements should be made for the provision of financial accommodation on a specially liberal scale to industrial cooperative societies to enable them to hold stocks of finished products, when necessary, in sizeable quantities.

The following assistance may be given to cooperatives for cottage and small scale industries in purchases made by Government departments and institutions.

(a) Apart from a general preference provided for products of cottage and small scale industries, a further marginal preference may be shown to the products of industrial cooperatives as compared with private units at least in fields of intensive cooperative organisation.

(b) The decisions and directives of Government in this regard should be sufficiently clear and should not, in any manner, give room for evasion.

(c) It should be made clear to the various departments of Government that it is the accepted policy of the State to support industrial cooperatives through their purchasing programmes.

(d) Wherever possible, all purchases of Government stores should be centralised in one Department of the State Government.

(e) Wherever an order is placed by Government or on its behalf, e.g., by the National Small Industries Corporation, industrial societies may be given, without delay, detailed specifications and such technical guidance and assistance as may be necessary.

(f) A list of goods produced by cooperatives of small scale and cottage industries should be drawn up and circulated periodically among heads of departments.

(g) Appropriate provision should be made for liaison between industrial cooperatives and the authorities of the State Government who make purchases for various departments.

Suitable machinery in the appropriate administrative department may be constituted, for bringing to the notice of large-scale industrial units, the products which industrial societies can manufacture for them, and to the notice of industrial cooperatives the type of products which might be required by large scale units and which could be produced by them.

The National Small Industries Corporation and the

Regional Small Industries Service Institutes should take a more active interest in providing assistance for co-operative societies.

The schemes of the various All India Boards for publicity and propaganda should be extended to as many products of cottage and small scale industries as possible. Such publicity and propaganda should be undertaken on a larger scale than hitherto.

The Government of India should make liberal annual contributions to the apex marketing organisations of the industrial societies so that they may undertake suitable schemes for advertisement, publicity, exhibitions, etc.

With the help of our Embassies and High Commissioner Offices, foreign markets may be tapped for the promotion of sales of the products of cottage and small scale industries. Wherever there is sufficient scope for canvassing sizeable business, active steps may be taken to build up a suitable marketing organisation, taking care that there is no avoidable duplication in such arrangement.

Each State Government may draw up a list of industries for the products of which there is an assured demand for which specific orders can be collected from large-scale purchasers and efforts for the organisation of industrial cooperatives may be specially devoted towards these industries.

Fullest use should be made of the facilities for technical aid available from the Handicrafts Board and similar organisations, with a view to finding and cultivating a foreign market for handicrafts products.

The management of the emporia run by State Governments or certain specialised organisations for the marketing of products of cottage and small scale industries may, wherever possible, be progressively transferred to suitable cooperative institutions.

V. Training And Education

The official and non-official staff connected with industrial cooperatives may, with profit, join any of the training institutions established by the Central Committee for Cooperative Training, choosing industrial cooperatives as their optional subject.

The key officers of the proposed industrial apex marketing society will require training of a high standard which should be organised as a special branch of the Senior Officers' Training Course at Poona, with adequate emphasis on business management.

Every State should open one or two training schools on industrial cooperatives for the training of junior cooperative officers and employees of industrial societies. Each of these schools may train 80 candidates per year in two classes of 40 each. The teaching staff is to consist of a Principal and three Lecturers, one for finance, business management and book-keeping, etc.

having experience in working out the programmes of the various All-India Boards dealing with cottage and small scale industries and a third for industrial cooperatives, including cooperative marketing and supply. Concessions such as free tuition, monthly stipends, lump-sum allowances for tours conducted for practical training, etc. might be granted to candidates. In the initial stages, the entire expenditure on such schools should be met by the Government of India and the organisation and other matters connected with the establishment and running of these schools might be dealt with by the Central Committee for Cooperative Training.

The suitable agency to impart cooperative education to the members and office-bearers of industrial cooperatives will be the paid supervisory staff and the Block Level Extension Officers (Cooperation and Industries). These officials, who should visit the industrial cooperatives often, and attend the meetings of their general body as well as of their committee, should not only provide guidance on specific problems and instruction in principles of cooperation but should also cultivate a business sense among the members.

The basic principles outlined in the pamphlet on "Extension work in the cooperative movement" by Prof. A.F. Laidlaw in regard to the requirement and training of extension workers, methods of extension and the general approach to work of this nature should be adopted in connection with the programme of Government for the development of industrial cooperatives.

The education programme for the members and office-bearers of industrial cooperatives should include instruction in regard to their special problems, organisational, administrative and financial, and the instructors should themselves be specially equipped for the purpose.

Periodical conferences might be held to popularise industrial cooperation as well as to educate different sections of the public in regard to its problems.

Elementary instruction in cooperation may be provided in the high schools and advanced courses of study in the subject may be introduced in the universities in the degree and honours courses in commerce and economics. Facilities for research in the various aspects of cooperation may also be provided in the universities.

The State Governments may, at an early date, undertake, with reference to the needs of their programmes for industrial cooperatives, a review of the arrangements for training and instruction of a technical nature, estimate the overall requirements in this field and take measures for their improvement to the necessary extent.

Full use should be made of the existing technical training organisations. Greater publicity and effective liaison between the various technical agencies associated

with the All-India Boards and the authorities in charge of industrial cooperatives are necessary and should be ensured.

Increasing use should be made of industrial cooperatives for promoting the technical efficiency of cottage and small-scale industries by the introduction of improved methods and tools for production.

Artisans of proved competence may be selected from among members of industrial cooperative societies and deputed to large industrial concerns in the country and in foreign countries, for training in improved techniques. Where a well developed cooperative society is in a position to provide such facilities, to artisan members of other societies, the concerned society may be suitably remunerated.

Even in courses which are strictly intended for technical training, cooperation should be included as a subject and the trainees might be taken round a few industrial cooperatives in the neighbourhood.

A careful selection of trainees for the training courses is necessary with reference to their background, prospects of future employment, etc. Preference may be given to candidates sponsored or recommended by well established industrial units or employers, including cooperatives.

VI. Administration

For coordinated control and unified direction, it is desirable to keep the cooperative financing agencies and the societies financed by them under the administrative control of a single authority. As the pressure of work in regard to registration, financing, audit etc., increases, the Registrar of Cooperative Societies, whose responsibilities at present pertain mainly to agricultural cooperatives, may, in some States, have to be relieved of the responsibilities relating to industrial cooperatives, housing cooperatives, etc. and these latter duties may have to be passed on to others. Thus, within a State, there may be two or three Registrars dealing, say, with agricultural cooperatives, industrial cooperatives and other cooperatives. Duplication of office and field staff for these Registrars should, however, be avoided as far as possible. Where there are two or more Registrars of Cooperative Societies, the work of these Registrars should be properly coordinated by appointing a Registrar-General or by designating the Senior Registrar as Registrar-General or by constituting the proposed two or more Registrars into a single Board with the Senior Registrar as Chairman.

In this administrative pattern which is suggested tentatively there should be room for designating, where necessary, the Director of Industries himself as the Registrar in charge of industrial cooperatives, though the detailed inter-departmental adjustments that this would involve, should be worked out very carefully.

Those selected for appointment as Registrar or

Registrar-General should be persons with aptitude for cooperative work and should invariably be given practical training in this field for a period of six months.

The Registrars of Cooperative Societies should not be disturbed from their posts before the completion of a minimum period of at least five years.

Liaison between the Departments of Industries and Cooperation should be established so that there is consultation between them in the formulation of their programmes and individual schemes and that, whichever department sponsors the organisation of a particular industrial cooperative, the guidance and help of the other will be readily available.

The Departments of Industries and Cooperation should ordinarily be placed under the same Secretary to Government and, if possible, under the same Minister.

The Officers of the Industries Department as well as the field staff might be given a brief training in cooperation as part of any technical training which is arranged for them. In cases where this cannot be done, they should be given at least a month's course of lectures and taken on visits to cooperative institutions.

At the district level, the Assistant Registrar of Cooperative Societies, who is in charge of all types of cooperative societies, should also be in charge of industrial cooperatives, but should be assisted, in this task, by a District Cooperative Officer for industries, or a Cooperative Sub-Registrar for industries.

An additional Assistant Registrar in the District to deal with industrial cooperatives alone might be appointed in those cases where their number and volume of activities are large enough to justify such an appointment. In such cases, coordination at the district level should be maintained by the seniormost Assistant Registrar in the district.

There should be adequate subordinate staff for the inspection and supervision of industrial societies.

The Block Level Extension Officers (Industries and Cooperation) should also be available for work relating to industrial cooperatives in the Community Development Blocks.

Gradually, as the apex industrial cooperative marketing society grows, it will be necessary, for ensuring coordinated development, that all such technical staff as are looking after industrial cooperatives should be transferred to this society from the Cooperative Department, the Industries Department and the other agencies employing such staff. It will be necessary that, for this purpose, the Government should continue to meet the cost of such staff till such time as the apex society is in a position to pay for their services.

There should be adequate audit staff, generally at the rate of one auditor for every 20 societies of average size, for doing at least one audit per year. In the case of large societies, provision should be made for concurrent

or interim audit, at the rate of one auditor for every five societies.

As the audit of industrial societies is likely to be complicated and difficult, special training facilities may be provided for auditors of industrial societies.

Periodical inter-departmental conferences may be arranged by the Registrar at which the problems of the development of industrial cooperatives can be discussed with the participation of the concerned departments.

The officials of specialised departments e.g., the Public Works Department, the Forest Department, etc., may be invited to conferences of industrial cooperatives, so that they may have a better appreciation of the difficulties experienced by these societies and may also advise suitably.

To ensure suitable allocation of funds for schemes connected with industrial cooperatives from out of budget allotments for departments other than the Cooperative Department, liaison between the heads of departments concerned and the Registrar will be necessary and should be secured.

A senior officer with experience in cooperation may be appointed in the Ministry of Commerce and Industry, Government of India, with the necessary staff, exclusively to give active attention to the development of industrial cooperatives, and, among other functions, to pursue with the State Governments and others concerned, the implementation of the necessary measures recommended by us in this regard.

Every endeavour should be made, to keep the State Cooperative Advisory Council informed of the activities of industrial cooperatives and to seek its advice and cooperation on important issues of policy in this sphere.

VII. Other Related Matters

(a) Women's Organisations

Trained women organisers may be appointed for conducting regular propaganda among women-folk. The

organisers should be carefully selected and trained in the principles and practice of cooperation, organisation, administration, accounts, etc., and also given technical instruction in a few important industries.

In particular, the possibilities of organising women's cooperatives in respect of the following industries may be fully explored:

- (i) Spinning and weaving.
- (ii) Mat-making.
- (iii) Embroidery.
- (iv) Tailoring.
- (v) Toy-making.
- (vi) Dolls manufacture.
- (vii) Bamboo products.
- (viii) Fish-net making.
- (ix) Hand-pounding of paddy.
- (x) Ornamental leather goods.
- (xi) Cosmetics manufacture.
- (xii) Making of thread ball, tape, ribbon, etc.
- (xiii) Food preservation and canning.
- (xiv) Pickles, etc.

The State Governments may undertake a review of the concessions now shown to women's cooperatives and extend to them the necessary incentives and concessions. Where necessary, assistance may be given by way of financial accommodation, supply of tools and equipment, free services of managerial staff in the initial stages, preferential purchases of the products of these societies, etc.

(b) Cooperative Housing

Such aids and facilities as are now available for providing houses and common facilities for weavers on a cooperative basis may be extended to other cottage and small industrial workers organised on cooperative lines, the particular type of cooperative industrial units eligible for help being determined in consultation with State Governments.

SCAVENGING CONDITIONS ENQUIRY COMMITTEE, 1957—REPORT

Delhi, Manager of Publications, 1961. 209p.+iip.

Chairman : Shri N.R. Malkani.

Members : Shri P.N. Rajabhoj; Shri K.L. Balmiki;
Shri Rajkrishna Bose; Shri N.S. Kajrolkar.

Secretary : Shri O.K. Moorthy.

IN INDIA 1957

APPOINTMENT

At the instance of the Minister for Home Affairs, the Central Advisory Board for Harijan Welfare, at its meeting of October 12, 1957, set up this Committee.

TERMS OF REFERENCE

- (i) Improvement of Scavenging condition;
- (ii) Improvement of living conditions of scavengers.

CONTENTS

Introduction; Cleaning of Latrines; Transportation of Night-soil; Wheel Barrows; Implements; Night-soil Deposits; Dumping Grounds; Underground Drainage; Design of Latrines; Latrines on Railways; Customary Rights; Methods of Scavenging in Foreign Countries; Administrative Set-up; Some General Aspects; Summary; Appendices I to XV.

RECOMMENDATIONS

The Receptacle

The use of receptacles in private and public latrines should be made compulsory.

The receptacle should be made of iron sheets or M.S. Plates of suitable gauge to last at least a year or so and should be provided with a handle on one side and a slanting side on the other.

The non-use of receptacles of latrines should be made an offence and the defaulters dealt with properly.

The municipal bye-laws should be so framed as to penalise the use of a receptacle other than the prescribed size and make.

The house-owners left to themselves would not go in for the receptacles even though it is made obligatory and penalty imposed for failure to provide the receptacle. The receptacles should, therefore, be supplied, periodically, at least once a year or more if the first is broken or damaged, by the local body directly or through licensed shops on a no-profit-no-loss basis, and if necessary at subsidised rates.

It should be the duty of the scavenger and the area sanitary inspector to report to the local body about a receptacle which might have broken or been damaged.

The local body should recover the cost of receptacle along with the scavenging tax where such a tax is in force or with other taxes at the time of their realisation.

The floor of latrines is often 'kutcha'. It should be cemented and slanting outward.

The receptacle chamber should not be too wide to allow lateral or forward movement of the receptacle. It should be placed in a fixed spot so as to ensure that the aperture in the squatting plate is just over the centre of the receptacle. Fixed place can be ensured by making a slight depression of the size of the receptacle in the floor with smooth slanting sidings so that the receptacle may get fitted into the cavity and water if any accumulated can be wiped out conveniently. The depression should not be deeper than half an inch.

Providing of receptacles in public latrines should be the responsibility of the local bodies.

Bigger receptacles so as to cater to the needs of the

place should be provided in public latrines, private latrines of big 'chawls', 'katras' or houses having large number of people.

The number of public latrines should conform to the demand for them in the area on the basis of their usage. It is desirable to prescribe a standard proportion to the population of the area and conform to it.

The structure of latrines where no receptacle can be placed at present should be got changed so as to make provision for a receptacle. This would not be costly and would not require much change.

As far as possible, all public buildings like offices, schools, hospitals etc., should have flush-out latrines failing which septic-tank latrines or aqua-privies be provided. But where this is not possible, it should be ensured that standardised receptacles are provided. Hotel owners and owners of places where large number of people stay should also follow this practice.

Wherever new buildings, colonies or townships are built by Government or with Government aid or by local bodies and in all industrial housing programmes, the latrines must be of sanitary types.

Night-soil, Urine And Ablution Water To Remain Separate

It would be better if the latrines are so modified as to ensure keeping night-soil and urine or ablution water separate. This can be done by having a slope in front of the seat so that urine is not mixed with night-soil. An additional step may be provided side by side so that the squatter shifts to the third step for purpose of washing.

The Scraper

It should be obligatory to use a standardised scraper which should be supplied by the local bodies to their employees and not left to the scavengers themselves.

In case of private scavengers, the local bodies should supply the standardised scraper directly or through licensed dealers at no-profit-no-loss basis and it should be made obligatory to use such a scraper.

The scraper should be of iron sheet or M.S. plates with a long handle at one end and a semi-curve at the other end. The sheet or plate should be of a suitable gauge so that it may not break while collecting the night-soil. The corners of the plate should be rounded.

It should be the duty of the scavenger and the area sanitary inspector to ensure that broken or damaged scrapers are replaced immediately.

The Rubber Gloves

Efforts should be made to encourage the use of rubber gloves, particularly at the pail-depots and dumping grounds.

The Head-load

Carrying of night-soil in basket, 'tasla' and drum etc., as head-load should be prohibited by law and made an offence.

For stopping carrying of night-soil as head-load, persuasive methods should also be adopted and they can be more effective than legislation.

The Bucket

In narrow lanes or lanes which are unpaved or have ups and downs, wheel barrows cannot ply conveniently and cannot be taken right up to the latrine seat. For such cases, there is no alternative but to introduce buckets. The bucket when full can be carried to the wheel barrow standing nearby.

In narrow lanes or roads of varying altitude, means like Kawar also known as Kawath, Kawad or Bengi may be used.

The local bodies should supply small buckets of not more than two to three gallons capacity, painted with coal-tar to its employees.

The lid of the bucket should be fixed with hinges as otherwise this is either thrown away or not used. The lid should be collapsible.

Private scavengers should also be compelled to use small covered buckets which can be supplied to them by the local bodies on no-profit-no-loss basis.

The broken or damaged buckets should be replaced immediately.

The Cess-Pools

Collection of night-soil in cess-pools is most insanitary and the inhuman ill use of scavengers engaged in cleaning them should be stopped.

The contents of cess-pools must not be carried as head-load.

Cess-pools maintained by local bodies particularly those attached to public latrines, should not be allowed to continue. All the pail-depots where night-soil is collected in big drums should be closed down.

Abolition of cess-pools in private houses is likely to take sometime. As long as these are in existence, the local bodies must introduce mechanical devices for cleaning them periodically. There should be a suction system.

In no case the contents of cess-pools should be removed by hand but only through mechanical devices.

Wherever feasible, lorries like Scampers should be introduced for sucking the contents of the cess-pools.

Lorries fitted with suction pump can be made use of.

Corporations or big municipalities or such local bodies as may afford, should think seriously in terms of introducing vacuum cars/lorries etc., as used in Japan for cleaning cess-pools.

Washing Of Latrines

It should be ensured that latrines are washed properly and regularly.

The scavengers should be given access to latrines.

Transportation Of Night-Soil

After collection night-soil is taken in basket, 'tasla', drum, etc., either as head-load or waist-load to the pail depot, carriage van or the place of disposal. This is most inhuman. The entire process of carrying night-soil as head-load or waist-load which is the root cause of all the troubles, has to be revolutionised.

For putting an end to the practice of carrying night-soil as head-load or waist-load, wheel barrows should be introduced.

The bullock or *bhensa* carts used for transporting night-soil are most insanitary and deserve to be abolished at once.

The man-drawn carts for carrying night-soil are an insult to human dignity and must be abolished.

There are various other types of carts drawn by bullocks which are all primitive. These need immediate replacement.

The open trucks are as bad as bullock carts. These should be discouraged.

The local bodies should introduce improved types of night-soil vans, tankers and trailers, etc.

Some local bodies collect night-soil in overhead tanks or big drums which have to be poured into night-soil vans for transportation. In some places, night-soil is churned and collected in pools before transportation. Such storage tanks and churning operations must not be allowed to continue.

In places of overhead tanks or pools used for collecting night-soil, the scientific system of providing trailers or night-soil tankers should be encouraged.

The night-soil barrels used for collection purposes should be placed at higher levels so that night-soil can be poured outright into the night-soil lorry tanker, or better still there should be a suction system.

Wheel Barrows

The crude type of wheel barrows already in use in some States should be discarded.

Some States are using drum wheel barrows of 15 to 40 gallons capacity. Such wheel barrows need replacement with better designs.

The design of wheel barrow as given in figure No. 49 is considered to be most useful, the introduction of which would facilitate the work of scavengers. This design could, however, be modified or improved in the light of local conditions.

The frame of wheel barrow should be all steel one with solid rubber type wheels with ball bearings. There should be two pails in the wheel barrow. The pails

should not be of more than five gallons capacity each and the combined capacity of both the pails should not exceed the capacity of eight gallons when full. The lids of the pails should be collapsible and fixed with hinges to the body of the pails. The bottom of the pails should be such that night-soil does not stick.

Even women scavengers would not resist the use of such light wheel barrows. At some places, women have already taken up to wheel barrows.

The design of wheel barrow proposed would not normally cost more than Rs. 100 to Rs. 120 if made locally or Rs. 120 to Rs. 140 if imported from any other State.

The manufacture of the proposed type of wheel barrow on a large scale for requirements throughout a State could be centralised to some place for distribution to all local bodies in which case the cost of wheel barrow would definitely come further down and the design will conform to the required pattern uniformly.

A few of the municipalities are using wheel barrows with four pails. Such wheel barrow costs Rs. 175 to Rs. 200. These wheel barrows are quite heavy and the scavengers using them complained of their weight. Such wheel barrows can be used by men only and not women.

Wherever necessary, some administrative adjustments may be carried out. Men may do the pushing and women the cleaning. The wheel barrows may be kept moving from house to house along with the women workers.

For places where wheel barrows cannot ply conveniently, Kawath also known as Kawar, Kawad or Bengi may be used. Two pails each of four to five gallons capacity hanging at either end of a bamboo pole at a distance of about six feet or so and may be carried on shoulder like the milk cans which are found convenient in such cases. An iron hook at either end may also be fitted to the pole.

The main difficulty in popularising the introduction of wheel barrows is the passive attitude of scavengers. This requires tactful handling. The local authorities should make a beginning with a few intelligent scavengers and with the assistance of non-official organisations and social workers, persuade scavengers to use wheel barrows.

To begin with only a few wheel barrows may be put into use on an experimental basis and on their becoming popular, more wheel barrows may be pushed in.

The Public Health Officers can by persuasion and by amending the bye-laws etc., achieve substantial measure of success.

Even the local bodies which have plans for underground drainage system, must take up the scheme of wheel barrows without further delay.

The number of wheel barrows can be reduced with the extension of the underground drainage line.

For transporting night-soil, the bullock carts, *bhensa* carts, donkey gangs etc., which are used at present should be replaced with tractors and trailers or such other mechanical vehicles.

In places where the trailers may not be convenient to ply, the local authorities may make use of three-wheelers. The intake capacity of the three-wheelers is quite good and these can ply in narrow streets easily.

The trailers must be placed at places within easy approach of scavengers and where these are needed more.

The entire process of dealing with night-soil from latrine to places of disposal would thus involve:

(a) Collecting of night-soil from receptacle under the latrine-seat with a proper scraper into the pail of a wheel barrow or a bucket provided with a collapsible lid where wheel barrow cannot ply;

(b) Emptying of bucket into the pail of wheel barrow;

(c) Carrying of wheel barrow to the trailer or pail-depot wherever it is in use and emptying the pails into the trailer, etc.; and

(d) Drawing of trailer by the tractor to the dumping ground or the place of disposal.

Financial Aspects

For the administration of various schemes, the main burden will have to be borne by the local bodies concerned with or without the assistance from the State Governments. They will have to make necessary adjustments and provisions in their bye-laws, rules, etc.

The State Governments will have to ensure that their local bodies agree to adopt the measures uniformly throughout the State.

For purchase of wheel barrows, the local bodies find it difficult to find out adequate financial resources. The best course would be for Government of India to meet the entire cost towards the purchase of wheel barrows failing which :

(a) The poorest local bodies should be given 100 per cent assistance—75 per cent to be given by the Central Government and 25 per cent by the State Government—the entire amount to be treated as grant;

(b) For medium local bodies, the Government's grant can be 75 per cent—50 per cent to be given by the Central Government and 25 per cent by the State Governments and the local body to contribute only the remaining 25 per cent from its own resources;

(c) For the bigger municipalities and corporations etc., the Government of India's assistance should be 50 per cent, the rest to be borne by the local body alone or by the local body and the State Government concer-

ned together.

The Union Territories being under the administrative control of the Central Government, the entire expenditure on schemes is borne by the Central Government. Being so, the Union Administrations are supposed to take a lead in the abolition of carrying night-soil as head-loads.

In all cases where the local bodies concerned need loans for meeting their share of expenditure, the State Governments should help the local bodies by advancing loans to them.

For purchase of other mechanical equipments like tractors and trailers or vans etc., the State Governments should find the fund which may be advanced to the local bodies as grants wherever possible or otherwise in the form of loans. If possible, necessary funds may also be found from the agricultural programmes for converting night-soil into manure. If the Ministry of Health provides any funds for such purpose that may be made use of.

The local bodies should earmark a fixed percentage out of their annual budgets for the improvement of scavenging conditions and the living conditions of scavengers.

Wherever wheel barrows are supplied to private scavengers, it should be the responsibility of the local body to watch the proper use and maintenance of the wheel barrows through the area sanitary inspectors.

Long-handled Brooms

Long-handled broom with a small 'Khurpi' (flat scraper) fixed at the other end for scrapping purposes would be found very convenient.

Implements

Implements' Allowance: Instead of giving implements allowance to scavengers, local bodies should supply all the necessary and proper implements to their employees to carry out their duties.

Besides the implements suggested by the Committee, the Public Health Officers should apply their minds to the problem and think about the continuous improvements of implements.

The local bodies by adopting necessary bye-laws should see that even private scavengers are equipped with necessary implements for use.

Night-Soil Depots

The number of pail-depots must be increased according to the needs. The pail-depots should be constructed at places where it is convenient and within easy reach of the scavengers.

In towns where due to over-crowding there is no place for constructing additional pail-depots, their trailers can be used more conveniently. These can be

stationed at suitable places and taken away with the help of a tractor at periodical intervals.

The existing conditions of the night-soil pail-depots and the scavengers working there are extremely unsatisfactory and deserve the immediate attention of the local bodies.

The work at pail-depots must be carried out in hygienic conditions and efforts should be made to ensure that the scavengers avoid bodily touch with night-soil and rubbish.

Cess-pools for storing night-soil before transportation should not be allowed to continue.

The workers at night-soil-pail-depots must be provided with gum-boots, gloves, aprons, water-proof headgears, long spades and rakes etc., for pulling out cloth pieces etc., and avoid clogging.

The structure of such depots where perchance, the scavengers have to wade through night-soil must be altered. Provision of trailers can minimise the difficulty to a great extent.

The depots may be so constructed as to allow the trailers to clear the load in the mouth of the depot itself.

In case of dry pail-depots, platforms of proper height with a sloping siding at either ends just like railway platforms must be constructed so that the wheel barrows can be brought with ease over the platform and poured into the standing trailer.

At every pail-depot, there must be an attendant. It should be his duty to handle the load at the depot.

Amenities At Pail-Depots

At every pail-depot arrangements for the supply of sufficient water for washing the vehicles, wheel barrows, drums, the depot, etc., and for scavengers to bathe and wash their clothes must be provided.

There may be separate bath-rooms for men and women. A set for each can be sufficient in most of the cases. The number may be increased if necessary.

Wherever possible, arrangements for changing clothes before and after the work should be provided.

Disinfection Stations

Corporations, big municipalities and such other local bodies as can afford, should establish disinfection stations where clothes of the scavengers may be given steam treatment. The local bodies may extend the benefit to others such as labourers, hospitals, etc., also.

Wherever the scavengers do not find it convenient to keep the wheel barrows etc., at the places of their residences, arrangements for keeping the wheel barrows at the pail-depots may be made. Their cleanliness can also be ensured.

Persons Working In Gutters

For cleaning underground sewers, use should be

made of mechanical devices already in vogue in big towns. Safety of the life of persons working in gutters should be ensured and such implements, apparels, masks, etc., as may be considered necessary provided to them.

Dumping Grounds

Dumping grounds should be as far away from the towns as possible. Where towns have extended, dumping grounds should be shifted further beyond.

The size of the dumping ground should be sufficient so as to meet the requirements.

All the night-soil and refuse of the town should be brought to the dumping ground. This would increase the income from the sale of manure.

To collect all the night-soil and refuse from the town, proper vehicles for transport should be supplied and vigilance maintained to see that no night-soil is wasted by the scavengers or members of the public.

As at present, most of the dumping grounds are running at loss. With the exception of a few isolated cases, the position need not be so tight and there is no reason why the entire business should not be turned into a profit making one and at least the cost of maintenance be realised.

To suppress the stink and nuisance of flies at dumping grounds, use of the Swingfog or the Gamma-xine Powder or any such other useful chemical must be made by the local bodies.

Workers At Dumping Grounds

Long gum-boots (up to the knee) are an absolute necessity for workers at the dumping grounds. They must be provided with gloves as well. An apron would also protect the clothes. Necessary implements for use should be given to the workers. They should be supplied with working uniforms and headgears.

The extra allowance of a rupee or so given by some of the local bodies to workers at dumping grounds does not meet the requirements.

At all dumping grounds, arrangements for the supply of sufficient water for washing vans, pails, etc., and for scavengers to take their 'bath and wash their clothes must be made.

Construction of a few bath rooms would be very useful.

For cleaning the vans etc., overhead water tanks and hoses can be more useful. The ground underneath should preferably be cemented.

At places where water supply is scarce, the local authorities must endeavour to supply as much water as possible. Digging of a well at the site may solve the problem to some extent.

In rocky areas, a well is not a practical solution. There the local bodies should make arrangements for bringing water in vans and storing in overhead tanks,

etc.

Somewhat or the other, water must be made available at the dumping grounds.

Supply of soap at dumping grounds and also at pail-depots is essential.

Arrangements for liquid soap or soap cakes may be made wherever possible.

Shelters may be provided at the dumping grounds under which the workers may rest during sun or rain.

Other amenities like place for changing clothes, medical aid, etc., can be considered wherever possible. Big local bodies at least should do this.

Agricultural Fields

In some parts of the country, people do not like to make use of night-soil for manuring purposes and there all the night-soil goes waste. To popularise the use of night-soil local bodies should attach agricultural fields to the dumping grounds. The manure prepared may be utilised in those fields which would serve as a model to others. It would also be a paying proposition to the local bodies.

Composting

The local bodies should ensure proper composting in the shortest possible time.

Gram Laxmi Gas Plant

The use of Gram Laxmi Gas Plant may be made in villages and towns where there are no agricultural fields or where no use of night-soil manure is possible.

Cooperative Societies

The local authorities may consider the possibilities of establishing cooperative societies for the purchase and sale of compost.

If cooperative societies of scavengers come forward they should be encouraged.

Private Dumping Grounds

No private dumping grounds should be allowed to continue.

Cleaning of night-soil and refuse from the town and its proper disposal is the primary responsibility of the local bodies and should be well looked after by them.

So long as customary rights are not abolished, the local bodies should ensure proper treatment of the night-soil at the private dumping grounds.

Efforts should be made to improve the conditions of work and workers at private dumping grounds.

If necessary, bye-laws and necessary legislation for the proper maintenance of private dumping grounds in the interest of sanitation should be passed and strictly enforced.

Some local bodies have already got some bye-laws

etc., which in many cases, are rarely implemented. There is great necessity for enforcing the municipal bye-laws and regulations strictly.

Underground Drainage

At least in all the towns already having some underground drainage system, the local bodies should make serious efforts to extend the lines so as to cover the entire towns.

In towns which are expanding rapidly, local bodies should make serious efforts to lay the underground sewers in all new colonies side by side with the provision of other amenities.

Sewage Disposal Plants

Local bodies should make use of Sewage Disposal Plants. They may follow the Madurai experiment for use and disposal of sewage of the town.

Local bodies can depute their officers to study the working of the farm at Madurai and adopt similar methods with improvements, if any, in their own towns.

After consulting experts, growth of vegetables, etc., on such farms may be encouraged.

Financial Aspects

A specific amount must be earmarked for the underground drainage schemes separately and at least one-third of the total allocations of the National Water Supply and Drainage Schemes should be earmarked for drainage schemes.

Grant Of Subsidy

Several towns have underground drainage schemes only on paper. Funds are not forthcoming. Such schemes are not workable without adequate subsidy from the Centre or the State Governments.

The Central Government must also give liberal subsidy to States.

The Ministry of Health may examine the possibility of giving subsidy under their Health and Sanitation Schemes.

State Governments which do not give any subsidy to their local bodies as yet must make necessary provisions for the purpose.

Connections With Underground Drainage System

In areas served with sewers, it should be made obligatory to connect house latrines with them. Defaulters should be dealt with properly.

Conversion Of Dry-Latrines Grant Of Loan/Subsidy

There are people who due to their poor financial position are not able to convert their dry latrines into water borne ones. For such people, local bodies should give loan/subsidy to house owners according to income

slabs, or in the light of local conditions.

The Central Government should also give aid to State Governments by giving adequate assistance.

Wherever underground sewers have already been laid or are being laid, latrines must be converted into flush-out latrines and in places where flush-out latrines are not possible, latrines like septic-tanks, aqua-privies etc., may be adopted.

Rebate In Taxes

The local bodies may examine the possibility of allowing some rebate in house, latrine tax etc., to such of the parties who may like to convert their dry latrines into water-borne, etc.

The rebate given at present is insufficient but should be raised so as to induce sufficient number of people to convert their latrines

Surface Drains

As long as surface drains exist, arrangements for keeping them clean should continue. At set of two persons—a cleaner and a bhishti—may be very useful.

The cleaners should have proper implements with them.

Wherever necessary, open surface drains should be covered.

There should be a short phased programme to make surface drains 'pucca' and at least by the end of the Third Five-Year Plan, all the surface drains must be made 'pucca'. These should be so constructed as to enable the water to flow easily and not stagnate.

Drains should be washed daily.

Sullage water from drains can be very well utilised in agricultural fields.

In towns where water supply is not sufficient, other arrangements for keeping the drains clean should be made.

Design Of Latrines

People must be educated and persuaded to construct latrines in their houses. The local bodies should pass bye-laws for having latrines compulsorily and the plans for construction of new houses should not be passed unless and until there is a provision of a sanitary latrine.

Bye-laws should also be passed for compelling owners of the existing houses which are without latrines to construct latrines.

Public Latrines

The number of public latrines should be increased keeping in view the demand for them.

In places of congestion where these are needed, the number of latrines should be increased.

Underground water-borne latrines at the cross roads would be found convenient.

As long as all the public latrines cannot be converted into water-borne ones, they should at least be made fly-proof. This would also prevent pig entry.

The local bodies should give serious thought to the models of public latrines. Primitive latrines must be remodelled and more sanitary latrines adopted.

As far as possible, public latrines should be water-borne with arrangements for the automatic flow of water after periodical intervals.

Public latrines should be constructed in the most crowded localities and places within easy reach. Latrines constructed at remote or far off places are not likely to be of much use and whenever these are used, these are misused.

Wherever possible, latrines should be built on a large scale underground.

Private Latrines

Roof-latrines as in Punjab must be brought down. Bye-laws should be framed that in new buildings roof-latrines are not allowed. Efforts should be made through legislation etc., or persuasion to bring down existing roof-latrines. Wherever space is available, sanitary latrines be constructed, otherwise standardised receptacles should be made use of.

Even roof-latrines may be converted into water-borne ones and connected with underground sewers where such sewers exist or to septic-tank which could be constructed on ground-floor. Where there is no space on the ground-floor or there are no sewers, septic-tanks may be constructed on cooperative basis at any available place in the street or where possible, just under the street itself and three or four houses may connect their latrines with them. Local bodies can help in keeping such septic tanks clean periodically.

All primitive latrines should be demolished. As long as these continue, no improvements in scavenging conditions can be expected. For remodelling primitive latrines, not only legislation, etc., but persuasion would also be required.

Some of the improved type of latrines suitable for towns are :

- (1) Flush-out Latrine.
- (2) Automatic-flush-out Latrine.
- (3) Septic-tank Latrine.
- (4) Aqua-privy Latrine.
- (5) Leach-type Latrine.

The local bodies should adopt the type of latrine they feel can be best suited to their towns. They may improve thereon making them more suitable to their towns according to the conditions prevailing locally.

Latrines On Market And Festival Days

Wherever markets or fairs are held regularly, permanent latrines should be provided which should possibly

be water-borne failing which any other improved type may be adopted. Wherever receptacles are provided, their sizes and arrangements for keeping them clean must be specified. Extra scavengers should be provided on such days. Where markets etc., are held after long intervals or where permanent latrines are not possible, temporary latrines of improved types with arrangements for extra scavengers should be made.

Latrines In Rural And Semi-rural Areas

Latrines should be introduced in villages also progressively and people must stop present indecent and insanitary practice of easing everywhere. It is indecent to observe a large number of people squatting all along the railway lines, etc. Some of the better type of latrines suitable for rural and semi-rural areas are:

- (1) 'Kucha' Trench Latrine.
- (2) 'Pucca' Trench Latrine.
- (3) Bore Hole Latrine.
- (4) Gopuri Latrine.
- (5) Dhanoli Type Latrine.

Latrines On Railways

The recommendations made in respect of the removal of night-soil, providing of receptacles, conversion of dry latrines etc., may under a phased programme be also adopted by the Indian Railways as well.

Where water-borne latrines are not possible, Indian Railways could construct fly-proof latrines.

Indian Railways have resources and technical talent to provide an abject lesson to the whole country in the matter of construction of various types of sanitary latrines. This would play a great psychological role on the minds of lakhs of people who see and use them daily throughout the country.

Customary Rights

Private scavengers have customary rights not only for cleaning latrines in certain localities but at some places over the possession and disposal of night-soil also. Such customary rights must not in any case be allowed to continue and be abrogated immediately.

The local bodies should pay reasonable compensation in cash to such of the scavengers who might be affected and do not get employment due to acquisition of customary rights.

The Governments at the Centre and State should come forward to finance such of the local bodies who are not in a position to pay reasonable compensation.

Whcrever cash compensation is not possible, or the local bodies cannot offer employment under them, the affected scavengers must be taken in other services.

Most of the scavengers would be prepared to forego their customary rights if provided with municipal services.

Scavenging Cess

In places where there is no scavenging cess, such a cess should be levied and the scavenging services municipalised. The scavenging cess should be so adjusted that scavenging services may become almost self-supporting.

L.S.G. Departments

It should be the duty of the Local Self-Government Departments to initiate necessary legislation for the acquisition of customary rights. They should handle the problem at the State level through their legislature and ensure that a uniform policy is adopted by all the local bodies and fully implemented.

Small Committees To Be Appointed

The State Governments and Union Administrations should appoint small committees to go into the whole question of the abolition of customary rights. They should not merely study the legal aspects but go thoroughly into other problems as well connected with it. They should draw up a phased programme for the abolition of customary rights and see that the work is completed as soon as possible but not later than a fixed target date. They should determine the basis, mode of payment and the amount, etc.

Negotiations and mutual agreements between the local bodies and scavengers can bring in the desired effects. The local authorities would be well advised to tackle the problem in a friendly and persuasive manner. Cooperation of non-official organisations and social workers interested in welfare of scavengers may also be enlisted.

Administrative Set-Up

The problem of improving the scavenging conditions should be dealt with by the Local Self-Government Departments of the States/Union Administrations or such other Departments as may be concerned with it.

All the necessary legislation, policy, directive principles, etc., should be issued by the Local Self-Government Departments and they should evolve a machinery to ensure the implementation of their directives etc., fully and properly through the local bodies and such of their officers as they may like to appoint. Mere enacting of legislation or issuing directives would not be so much helpful as their proper implementation.

The State Governments/Union Administrations should appoint Special Officers exclusively to look after the problems of scavenging and scavengers.

Need For Central Officer

The Central Government must appoint an officer having the necessary background knowledge of the various problems of scavenging and scavengers in the

country at the Centre to deal with these problems and watch their day-to-day development.

A small Vigilance Committee consisting of non-officials who are well acquainted with the magnitude of the problem and have shown serious interest in tackling it, should be appointed by the Ministry of Home Affairs to move about from State to State, meet and discuss with officials, social workers and members of the public about the urgency of the problem and mobilise their efforts for solving it.

The Ministry of Home Affairs who are concerned with the welfare of Scheduled Castes should initiate legislation for the abolition of customary rights, if necessary.

The ceiling for water supply and drainage schemes should be fixed separately. The ceiling for drainage scheme is too small in comparison to the cost and requirements of this scheme. The Ministry of Health should consider increasing this ceiling.

The Ministry of Health may consider giving some grants/loans to be recovered in convenient instalments to the local bodies through State Governments for the purchase of vehicles, etc., for transportation of night-soil and town refuse.

The Ministry of Food and Agriculture (Agriculture Department) may also consider what possible help they can give for converting night-soil into manure under agricultural programmes.

The State Governments/Union Administrations should help their local bodies technically, financially and otherwise.

The Cooperation Department of the Ministry of Community Development and Cooperation can also tender their advice and start some of the schemes if possible for the welfare of scavengers particularly those who may be affected due to abolition of customary rights, and also help in the collection, preparation and sale etc., of the manure on a cooperative basis.

Some General Aspects

Though the question of the improvement of the living conditions and environment of scavengers is beyond the scope of the terms of reference of the Committee, yet as this is an important aspect having direct bearing on the problem, some suggestions have been made which require urgent attention.

Housing

Quarters for conservancy staff should be as near their places of work as possible but never around the pail-depots, morgues, public latrines, dumping grounds, etc. Such location of scavengers' quarters at such places amounts to criminal neglect. A few quarters here and a few there may be built in colonies inhabited by others as well so as to avoid segregation and give an impression of a mixed colony.

It is of primary importance that the housing conditions of scavengers are radically improved. This would create a new sense of self-respect in them and particularly their children.

For the welfare of scavengers, maximum use of the Slum Clearance Schemes should be made. It is necessary to have a special provision in the plan under the Works and Housing Ministry for providing houses to the conservancy staff of the local bodies.

The Low Income Housing Scheme

The local bodies should construct houses for scavengers under the Low Income Housing Scheme and, as far as possible pass on the quarters to them on Hire-Purchase system.

Leaving aside the schemes under the Slum Clearance and Low Income Housing Schemes, it would be advisable for the local bodies to construct houses for scavengers and give them on Hire-Purchase system. This would enable the scavengers to own their houses after sometime and live in them permanently.

One-room tenements are not adequate. Scavengers have large families and even taking an average of five members per family, one-room tenements are too small. From the point of view of moral hygiene also every tenement must make provision for two living rooms. A kitchen, a bath room, a latrine—flush-out or any other sanitary type like septic-tank etc., built up cupboard, a slightly raised platform for fire place with a hood and chimney over it and possibly a hollow underneath for storing fuel and a verandah should be provided. Wherever possible, electricity must also be provided. Water supply is a necessity.

The quarters need not necessarily be completely 'pucca' and wherever the cost is on the high side, these may be 'semi-pucca' as well. The cost of each tenement for such quarters which are not to be owned by the scavengers on Hire-Purchase system, etc., may vary from Rs. 1,200 to Rs. 2,000 on the lines of the quarters built in Madras under Slum Clearance schemes.

It is very important that amenities like primary school, a welfare centre with a community hall which may be used as community centre, medical facilities etc., are provided in large colonies. A social worker should invariably be provided to be incharge of the welfare activities. There is a need for appointing a social worker for covering a population of 100 families.

Conditions Of Service

At present, conditions of service in different States are far below the minimum needs which is the principal reason for discontentment amongst scavengers. The better the service and working conditions, better would be the relations between the scavengers and the local bodies.

Wages

Wages should be paid to scavengers according to the Minimum Wages Act.

The State Governments/Union Administrations who have not done it so far, must appoint small committees to go into the whole question of wages and payment of other allowances to scavengers and suggest basic wages which should, however, not fall below the minimum wages. Question of payment of other allowances as may be admissible to scavengers must also be considered.

Unclean Work Allowance

Unclean Work Allowance should not be in cash, but in the form of extra amenities such as gloves, water, etc., to make the occupation more clean. Extra allowance paid in cash is not utilised properly and the work remains unclean. Such a terminology should not be used. Unclean Work Allowance can very well be called like any other ordinary allowance.

Distribution Of Wages

Wages should be distributed in the presence of a responsible officer of the local body who should ensure that no creditors are allowed to throng the premises and harass the scavengers. Such an officer should also keep an eye on the supervisory staff of the local bodies directly in touch with the scavengers and who are often alleged to accept illegal gratifications.

Hours Of Work

For full time employees, the hours of work should not be more than seven hours per day of which only four to five hours may be reserved for scavenging work. Part-time worker should not be asked to work both in the morning and evening as this deprives them of any other work and causes them hardships.

Roll Call

The scavengers on duty should be called only twice for roll call—once in the morning and once in the afternoon.

Leave Rules

Local bodies should frame leave rules and the scavengers should be given the benefit of casual, privilege, earned leave, etc.

Women scavengers must be given pre-natal and post-natal leave. They should be given leave in case of miscarriage, etc., also.

Off-Day In A Week

State Governments/Union Administrations should see that at least in local bodies where the scavenging service is municipalised, scavengers are allowed a full day off in a week.

Uniform

All the local bodies should give sufficient and proper summer and winter uniforms both to male and female scavengers.

Proper kit for scavengers for cleaning underground drains should be supplied.

Permanency Of Service

Every effort should be made by the local bodies to give some security of employment to the temporary scavengers and avoid keeping them on a temporary basis for an indefinite period.

Full-Time And Part-Time Workers

Local bodies, as far as possible, should not appoint part-time scavengers. Full-time worker is bound to be more efficient.

Appointment Of Scavengers In Other Occupations

Scavengers who may like to leave their occupation should be appointed on other posts such as peons in other Departments, 'chowkidars', 'naka-walas', etc.

Vocational training may be imparted to such of the scavengers who may like to settle in a trade. After training some subsidy/loan may be given to them for settling in trades. They be given chances and opportunities for training as drivers, cleaners and mechanics etc., in municipal workshops and other gainful occupations.

Water Supply

Sufficient water for drinking and washing must be supplied to scavengers in or near 'basties' and at times when they return from work.

Soap

Arrangements for supply of soap at the place of work like pail-depots and dumping grounds etc., should be made.

Women Workers

Creches should be started in the colonies of scavengers where a paid worker preferably a trained lady worker may be appointed to look after the children. Children must be taught clean ways of living and habits so as to make them clean persons.

Community Centres

There should be established community centres where care of children is combined with training of women in some crafts and adult education. Such community centres should also be used for cultural purposes and amusements, etc.

Education

State Governments and local bodies should ensure

that children of scavengers are provided easy admissions in schools and hostels irrespective of their caste. Efforts should be made to open primary schools near their 'basties' where children of scavengers and other communities may receive education.

Occupational Diseases

All State Governments etc., should conduct a medical survey and find out if the scavengers suffer from any disease due to their handling night-soil. If so, proper medical arrangements for them should be made. Scavengers must at least be examined periodically.

Name For Scavenger

In order to create a healthy atmosphere and psychological background, the scavenger should not be called by the age old, name. He should be known by some more decent terminology according to local conditions and language.

The Pig

Rearing of pigs in any area of towns must not be allowed. If anybody wants to rear piggery, he should do so on the proper lines away from towns.

Urinals For Men And Women

Adequate number of urinals, preferably with automatic water arrangements, should be put at public places like bus stands, market places, parks, cinema halls, thoroughfares, etc. Urinals for women must also be provided in sufficient numbers. Urinals near latrines are bound to be misused and should be avoided. Efforts should be made to equip men's urinals with Western type basins which cannot be misused.

Dust Bins

Local bodies must provide dust bins at all suitable places which should be within easy reach and ensure their proper cleaning. The dust bin may be kept fixed on paved floors.

Legislation

State Governments/Union Administrations should explore possibilities of framing rules, byc-laws, etc., which they may consider necessary for the solution of various problems.

Propaganda

Various processes of scavenging problems such as use of defective and good latrines, methods of scavenging, working at pail-depots, dumping grounds and system of carriage etc., can be filmed by the Ministry of Information and Broadcasting in consultation with the Ministry of Home Affairs and the good and bad spots in the country presented before the masses who should be

educated in the use of improved methods.

The documentaries, cinema slides, etc., prepared by the Films Division of the Ministry of Information and Broadcasting would be of great help in creating public opinion for improving conditions of scavenging and those of scavengers.

The Ministry of Home Affairs and the State Governments/Union Administrations should ensure that those non-official organisations who get financial assistance either from the Centre or the State Government must include schemes for the improvement of the conditions of scavenging and scavengers in their programmes. They should be asked to publish posters, leaflets, etc., propagating the need for improvement of the conditions. The

organisations who have got cinema vans should be asked to make use of such vans for the purpose of schemes for putting an end to the practice of carrying night-soil as head-loads, conversion of dry latrines into sanitary ones, schemes for improvement of the scavenging conditions and those of scavengers.

This should be one of the compulsory schemes seeking assistance from the Centre and the States.

It is essential that State Governments and the Ministries of the Government at the Centre should draw up a phased programme for implementing the various recommendations and suggestions in a systematic manner by the end of the Third Five-Year Plan.

AD-HOC COMMITTEE ON COTTONSEED OIL INDUSTRY, 1957—REPORT

Delhi, Manager of Publications, 1960. 74p.

Chairman : Shri N. Srinivasan.

Members : Shri K. Vyasulu; Shri F.G.T. Menzes;
Shri E. Svendsen; Shri S.H. Turner; Dr.
A. Chatrapati; Shri Tulsidas M. Vishram;
Shri G.V. Sirur; Dr. R. Sankaran.

Member-

Secretary : Shri V.A. Mehta.

APPOINTMENT

A conference was convened on August 17, 1957, in the Ministry of Commerce and Industry under the chairmanship of Shri Manubhai Shah, Minister of Industries, to discuss measures necessary for the development of cottonseed crushing on a priority basis. The meeting was attended by representatives of the Planning Commission, Ministries of Food and Agriculture and Finance; Council of Scientific and Industrial Research; East India Cotton Association; cottonseed crushers; vanaspati industry and acetate rayon manufacturers. In accordance with the decision taken at this meeting, Government of India, vide letter No. 11(29)/57-NF and MC, dated October 28, 1957, set up an ad hoc Committee for the industry.

TERMS OF REFERENCE

(a) To examine the immediate problems of the industry and suggest ways and means for its speedy development.

(b) To examine the present position of the industry, e.g. installed capacity, annual production etc., and

suggest suitable locations for new units.

(c) To suggest fiscal measures which could give necessary incentive for the crushing of cottonseed and the consumption of cottonseed oil as cooking oil and in the manufacture of vanaspati.

(d) To suggest measures for developing the use of decorticated cottonseed cake.

CONTENTS

Introduction—Terms of Reference of Committee—Method of Work of Committee; Importance of Industry in India's economy—Progress made in other Countries—Growth of Industry in India; Present Position of Cottonseed Crushing in India and Availability of Cottonseed—Composition of Indigenous Seed—Location of Units—Production, Consumption, Exports and Price of Cottonseed Oil; Problems of the Industry; Plan for the Future Development of the Industry; Processing Operations; Cotton Linters; Cottonseed Hulls and Cake; Industrial Uses of Cottonseed Oil and its Soap Stock; Utilisation of Cottonseed Oil in the Manufacture of Vanaspati and Refined Oil; Recommendations of the Committee; Conclusion and Acknowledgements; Appendices from 1 to 13.

RECOMMENDATIONS

Crushing of Non-fuzzy Seeds: The crushing of non-fuzzy seeds which contain smaller percentage of linters could be advantageously undertaken in the unorganised sector by smaller units which are not equipped with deli-

nting machinery. The Committee is of the opinion that this sector may be encouraged to crush non-fuzzy seeds.

Fuzzy Seeds: The objective of the industry in the organised sector should be to crush such seeds which are rich in linters (fuzzy) and at the same time have a higher oil content, it being immaterial whether they are of American or desi origin

Installed Capacity: The Committee is of the opinion that the installed capacity of cottonseed oil mills in the organised sector ought to be rated not merely by the expeller capacity but by the capacity of the delinting machinery.

New Units Recently under Licensed Industries (Development and Regulation) Act: The Committee understands that a number of mills licensed under Industries (Development and Regulation) Act have not yet taken effective steps to set up their units. The Committee is of the opinion that Government should review their progress at an early date and take steps where necessary to revoke licences which block up the capacity. The revoked capacity may be allotted to other applicants from the same State.

Speculation in Cottonseeds: The Forward Markets Commission may keep a watchful eye on the speculative activities in the forward markets of cottonseeds so that such activities may not hinder the availability of cottonseeds for crushing purposes by pushing the prices beyond crushing parity.

The Forward Markets Commission may also consider whether the practice reported to be adopted at Bombay of excluding the fuzzy variety of cottonseeds from tendering against forward contracts can be extended to other exchanges dealing in cottonseeds.

Fiscal Policy: (i) The Government of India should persuade the State Governments to waive the sales tax, levy on cottonseeds on special considerations or at least not to discriminate and exempt cottonseed which is fed to cattle from payment of sales tax as this step would divert more and more whole seed instead of cake for cattle feeding. The State Governments should also be requested to advise local bodies to consider the abolition of octroi duty on cottonseeds.

(ii) Unlike other vegetable oils, there is at present no excise duty on cottonseed oil. Government of India have exempted cottonseed oil in order to give a stimulus to the crushing of cottonseeds. The Committee recommends that excise duty should not be levied on cottonseed oil for five years. The position may be reviewed thereafter. Such an announcement from the Government would help the rapid development of the industry.

Financial Assistance: (i) Government may advise State Finance Corporations to accord high priority to cottonseed oil industry in their scheme of assistance to private industrialists.

(ii) The Reserve Bank should be requested to advise all scheduled banks to consider the question of advancing loans on cottonseed and cottonseed products.

Transport Facilities and Railway Freight: (i) The Committee recommends that the Railway Board should consider reduction of freight on movement of cottonseeds on station to station basis within 400 miles, where a crushing mill is located at or near the railway station. Such a concession will no doubt apply to cottonseed meant both for crushing as well as for cattle feeding, as it will be difficult to prevent consignments being used by the farmers as well. It is suggested that this concessional freight may be half that of the normal rate charged for groundnut in view of the fact that the percentage of oil recovered from cottonseed is hardly 50 per cent of that recovered from groundnut.

(ii) The Railway Board should examine again the difficulties in connection with the loading of 300 maunds of cottonseed hulls in open wagons. The industry has pointed out that it is not possible to load more than 200 maunds in each wagon, although the railways have stipulated 300 maunds and also charge freight for this quantity. Similar difficulties are also faced on the metre gauge.

Import of Bleaching Earth and Activated Carbon: Import of bleaching earth and activated carbon should be allowed for refining cottonseed oil till indigenous products of satisfactory quality are available.

Import of Plant and Equipment: The proposal regarding the import of cottonseed preparatory machinery on a barter basis against cotton linters may be examined by the State Trading Corporation. The possibility of procuring preparatory machinery and continuous solvent extraction plants under the U.S. Export-Import Loan Fund and other Assistance programmes may also be explored by the Government.

Standards for Cottonseed Oil: Standards should be laid down for crude cottonseed oil by the Indian Standards Institution. Standards may also be prepared for cottonseed. The Indian Standards Institution may urgently re-examine the standards laid down for washed cottonseed oil in consultation with the manufacturers as well as the consumers of cottonseed oil e.g. vanaspati and soap manufacturers.

Research Problems: The Committee recommend that an investigational work on cottonseed and cottonseed products should be coordinated by the Council of Scientific and Industrial Research.

Association of the Industry: The Committee recommends that an Association of Cottonseed crushers be formed to consider common problems and assess the progress of the national plan for the industry.

Future Development of the Industry : (i) The Committee recommends a plan for the speedy development of the industry in two stages:

(a) Production on a minimum basis of 60,000 tons of cottonseed oil by the existing and licensed units and by establishing nine additional units each of capacity 12,000 tons per annum in terms of cottonseeds on the basis of 200 working days in a year. Out of these nine units, two should be set up in Madras, two in Madhya Pradesh, four in the Punjab and one in Rajasthan.

(b) The second stage would be to achieve a production of 70,000 tons of oil by the setting up of further five units of similar capacity, one in Madhya Pradesh and four in the Punjab.

(ii) The Committee is of the opinion, that in order to achieve the additional installed capacity, first preference should be given to existing regional vegetable oil mills and vanaspati factories. New units may, however be developed in case the existing oil mills and vanaspati factories do not take to crushing cottonseed expeditiously.

(iii) The Committee feels that special efforts may be necessary to develop cottonseed oil industry on modern lines in the Punjab.

(iv) The Committee considers that there is full justification for incurring the foreign exchange of Rs. 1.6 crores for the immediate development of the industry.

Organisation of the Industry on Cooperative Lines: While every encouragement may be given to the organisation of the industry on cooperative lines in accordance with the plan evolved by the Committee, existing oil mills, vanaspati factories and new entrepreneurs should not be prevented from setting up cottonseed oil mills on modern lines at approved locations.

Processing Operations: (i) The Committee is of the opinion that solvent extraction process for extracting oil from oilseeds and oil-cakes is particularly advantageous for cottonseed which has a lower oil content in comparison with other oil seeds.

(ii) The Committee recommends that continuous refining plants may be allowed to be imported as far as possible by those who wish to install such plants, as the continuous process is more economic than batch refining process.

Linters : (i) Increased cultivation of the improved variety of cottonseed—Active steps should be taken by the Government to extend the cultivation of the fuzzy variety of cottonseeds in different regions of the country.

(ii) The Committee recommends that the linter industry should be organised on the basis of production of first-cut and second-cut, as the latter is the most suitable raw material for high grade chemical cotton essential for the manufacture of plastics, rayon, films, explosives, lacquers, etc.

As there is no demand in the country for first-cut linters, in view of the availability of mill-waste, the first-cut may be allowed to be exported freely and to facili-

tate such exports, the export duty of 30 per cent ad valorem which was abolished early in 1958 should not be reimposed for five years. The position may be reviewed thereafter.

(iii) The Committee recommends that linter pulp plants may be organised at suitable places to facilitate the conversion of linters into bleached pulp for industrial purposes.

(i) **Cottonseed Cake:** The Committee recommends that production of balanced ration for cattle composed of decorticated cottonseeds cake, hulls, rice bran, molasses, salt, etc., should be undertaken on a large scale.

(ii) **Propaganda:** Intensive propaganda may be undertaken for popularising cottonseed cake through Community Development blocks under Community Projects Administration and All India Radio.

(iii) The Central Oil-seeds Committee should give serious attention to propagation of use of cottonseed cake instead of the whole seed by the farmer.

(iv) The Committee recommends that Government dairies and farms should use cottonseed cake instead of whole seed. Ministry of Food and Agriculture may also advise the State Governments.

(v) **Standards:** The Committee recommends that uniform specifications should be laid down by the Indian Standards Institution for decorticated cottonseed cake based on analytical figures of cake produced by modern mills. The State Governments and Army Purchase Organisation should follow the I.S.I. standards while prescribing their requirements.

(vi) **Production of Undecorticated Cake:** The production of undecorticated cottonseed cake need not be discouraged. Delinting of seed should however be done in all cases; hulling may or may not be done. This would facilitate the disposal of cottonseed cake. As an animal feeding stuff, undecorticated cake can replace the whole seed more readily than decorticated cake in the initial stages.

Soap Stock and Soap Industry: (i) Soap Stock—Plants may be established in central locations for the production of fatty acids from refinery soap-stock and Government should provide facilities for the import of plant and machinery for this purpose.

(ii) The Committee recommends that five per cent of cottonseed oil may be used in the manufacture of soap.

Utilisation of Cottonseed Oil in the Manufacture of Vanaspati: (i) The Committee endorses the decision of the members of the Vanaspati Manufacturers Association to voluntarily use cottonseed oil in the production of Vanaspati—two-and-a-half per cent on an annual basis in 1958, five per cent in 1959, seven-and-a-half per cent in 1960 and 10 per cent in 1961. Cottonseed oil would be used in the manufacture of Vanaspati upto

five per cent irrespective of the price difference between cottonseed oil and groundnut oil.

(ii) The Committee recommends the manufacture of special brands of vanaspati for the Army containing

25 per cent to 50 per cent cottonseed oil, in view of the possibility of larger consumption of cottonseed oil in such brands.

COMMITTEE FOR THE INTEGRATION OF POST-BASIC AND MULTIPURPOSE SCHOOLS, 1957—REPORT

New Delhi, Ministry of Education. 1960. 34p.

Chairman : Dr. P.D. Shukla.

Member : Shri Veda Prakasha.

Secretary : Shri D.J. Lall (Later Shri P. C. Sharma took over charge).

APPOINTMENT

In pursuance of the recommendation of the Standing Committee on Basic Education, the Union Ministry of Education appointed in November 1957, a Committee for the Integration of Post-Basic and Multipurpose Schools.

TERMS OF REFERENCE

The terms of reference were as follows :

(i) To undertake a comparative study of the syllabi of the Multilateral and the existing post-Basic schools ; and

(ii) To find out common points with a view to bringing the two types nearer to each other.

CONTENTS

Introduction ; Post-Basic and Multipurpose Schools; Recommendations; Summary of Recommendations; Appendix.

RECOMMENDATIONS

1. The study of crafts in post-Basic schools should be considered equivalent to the study of the electives in the Multipurpose schools and for doing this, proper standards should be laid down for both.

2. Necessary assistance should be provided to every post-Basic school to enable it to raise its standard of study in Humanities and Sciences to the same advanced level as is provided for them as electives in every Higher Secondary School.

3. While selecting schools for conversion to Multipurpose schools, the post-Basic schools should be given the same consideration for this conversion, wherever possible, as other Higher Secondary schools.

4. A common scheme of examination for both the post-Basic schools and the Multipurpose schools should be instituted by the State Boards of Secondary Education after giving due cognizance to the special features of the work done in post-Basic schools. This should automatically imply the issue of the same certificate for students of post-Basic schools as for those of other Higher Secondary schools.

5. During the interim period the Governments should recognise the school final examination of the post-Basic schools as equivalent to the certificates awarded to the students of other Higher Secondary schools for purposes of employment and urge upon the universities to accord the same recognition to that examination for purposes of admission to institutions of higher learning.

6. In order to enable post-Basic schools to improve the quality of their teachers and strengthen their laboratory, library, etc., the same financial assistance and guidance should be made available to the post-Basic schools as is being done to the Higher Secondary and Multipurpose schools.

7. As a matter of policy the products of post-Basic schools should, in the earlier stages, be given preference in the matter of employment on those special jobs for which their training has specially equipped them.

8. The recommendation of the All-India Commission for Secondary Education regarding the study of crafts as a compulsory subject should be implemented in all Higher Secondary and Multipurpose schools with due emphasis on the productive aspect of that work.

9. The technique of correlation should be specifically emphasised in all Higher Secondary and Multipurpose schools and utilised as an effective technique of teaching to the extent it is normally possible to do so at that stage of education.

10. Every post-Basic school should suitably add the words 'Higher Secondary' to its name.

EXPERT COMMITTEE ON COAL CONSUMPTION ON RAILWAYS, 1957—REPORT

New Delhi, Railway Board, 1958. 210p.+ viip.+ Plates.

Chairman : Shri Karnail Singh.

Members : Shri R. Krishnaswamy; Shri Ratan Lall; Dr. J. W. Whitaker; Shri P. M. Nayak; Dr. A. Lahari.

Secretary : Shri D. P. Mathur.

APPOINTMENT

The Export Committee on Coal Consumption on Railways was constituted under the Ministry of Railways vide their letter No. E 57 CO/ 133/ RBI, dated November 5, 1957, to study the Railway coal problem.

TERMS OF REFERENCE

I. To examine and to report on the factors responsible for increase in railway expenditure on coal, commenting particularly on:

(i) The extent to which the quality of coal is responsible for increase in consumption and expenditure and for poor performance;

(ii) The expenditure incurred on handling charges keeping in view the lead and lift involved;

(iii) The comparative merits and demerits of employing departmental or contract labour for coal handling;

(iv) The causes and quantum of wastage and losses of coal in transit, in sheds and otherwise;

(v) The extent to which the increase in expenditure on coal is due to increase in traffic, coal prices, freight charges of coal, etc.

II. To examine the Railways' future requirements of high grade coal for steam traction and the prospects of adequate supplies and to recommend measures for meeting any anticipated shortages.

CONTENTS

Preface; Introduction; Part I—Coal Consumption and Expenditure—Indian Coals: Grading and Pricing Structure; Trends in Expenditure on Railway Coal; Effect of Quality of Coal on Consumption and Costs; Other Factors affecting Coal Consumption; Losses and Wastages; Handling of Coal and Ashes—Merits and Demerits of Contract and Departmental Working; Handling of Sea-borne Coal at Calcutta Docks; Measures for reducing Coal Consumption and Expenditure.

Part II—Prospects of Future Supplies of Coal to Railways and Measures Necessary for Meeting Deficiencies—Coal Reserves, Production and Requirements of Various Grades of Coal for Railways under the Second

and Third Five-Year Plans and anticipated Deficiencies; Measures necessary to Meet Deficiencies in Future Supplies; Scope for Reducing Coal Requirements by Electrification and Dieselisation; Resume of the Report, Summary of Recommendations; Appendices 1 to 23.

RECOMMENDATIONS

Quality Of Coal

The number of collieries from which coal for the Railways is drawn should be progressively reduced to facilitate inspection and control of quality. The target number to be achieved eventually may be taken as 250.

As loading of miscellaneous coal and dirt is now practised underground in the mines, it is essential that travelling picking belts should be provided on the surface to ensure efficient handling of shale and dirt and loading of coal to specified grades.

The Railways on their part should take immediate steps to set up an organisation for inspection of railway coal with a view to ensuring that the supplies are according to declared grades. The establishment of such an organisation is all the more urgent because the Railways will have to accept more and more non-coking coals in place of coking coals and the maintenance of quality is vital.

Railways should obtain their supplies by entering into contract with collieries and the contract should provide for penalties enforceable by Railways for failure to supply coal according to grade.

Coal quality surveys should be conducted twice a year by Railways preferably in collaboration with Central Fuel Research Institute.

The coals of Outlying Fields should be graded and suitably priced without any delay.

The present grading of Bengal and Bihar coals, which is now over 10 years old, should be revised.

Assessments Of Losses And Wastages

Reweighment checks of coal wagons at receiving sheds should be periodically carried out to keep a watch on transit losses.

The quantity of coal consumed in shed services should be assessed separately from that consumed in train working.

The calibration of locomotive tenders should be improved to enable accurate assessment of tender balances.

The Railways should be fully equipped to carry out

periodically coal trials for fixing correctly trip ratios for various services so that coal consumption on line can be properly checked.

Handling Of Coal And Ashes

All coal handling operations should be departmentalised in sheds where losses of coal by pilferage are heavy.

Loading of coal on engine tenders should be departmentalised in sheds where this is done mechanically.

Mechanical loading should be introduced in all sheds where coal loading exceeds 70 tons per day.

Contracts relating to picking of cinders and handling of ashes should be terminated on Railways and departmental labour should be organised to handle the various operations as under:

(i) Cleaning of ashpits and loading of ashes into trucks for dumping at nominated sites should be undertaken by departmental labour controlled by loco sheds.

(ii) Picking of cinders, screening and grading of ashes and disposal of cinders and ashes including utilisation for Railway purposes should be handled by departmental labour controlled by the Engineering Department on Railways.

At wayside stations, including traffic yards, all items of ash handling and cinder picking should be undertaken by the Engineering Department.

Experimental schemes should be organised by the Railway Testing and Research Centre to examine possibilities of large scale utilisation of ashes for construction purposes.

To save Southern Railway additional expenditure which they now incur on the supply of coal by sea, supplies of coal from Outlying Fields should be increased after steps have been taken to improve the quality of the coals produced in these fields.

The present contract arrangements for handling of Southern Railway coal at the Calcutta Docks should be terminated as early as possible and replaced by a departmental organisation under a Railway officer with sufficient commercial experience. He should be assisted by an experienced Senior Commercial Inspector and a Divisional Accountant in the management of the work now done by the shippers and in the settlement of monetary transactions relating to:

- (i) Payment of colliery bills;
- (ii) Verification and adjustment of Railway freight charges; and
- (iii) Prompt payment of port dues and other charges in an authorised manner.

tion in accordance with the pattern indicated by the Committee should be expedited.

Coal consumption on shed movement should be controlled by recording the time spent on shed services.

Trip ratios for train services and a scale of allowances for extra consumption due to out-of-course stoppages and detentions should be fixed on the basis of properly conducted trials.

Facilities for training of shed and running staff should be increased to improve the standards of locomotive maintenance and firing technique. Further, a review of the maintenance organisation on Railways is necessary to meet the requirements of rapidly increasing traffic and rolling stock holdings.

Investigations regarding the specifications of lubricating cylinder oils should be finalised as early as possible.

Co-operation of the State Governments should be sought to regulate the sale of steam coal only through licensed dealers so that local authorities can question the sources of supply by examining their accounts and other means in the event of any malpractices being suspected.

The strength of Security Force with the Railways consider inadequate for keeping a watch over coal stacks in sheds and overloaded coal wagons standing in open yards, should be suitably augmented without delay; armed guards should be posted in sheds and yards as a drive against pilferage where necessary.

Although the expenditure on the provision of brick walls to prevent the entry of outsiders into loco sheds is heavy it is amply justified at sheds where pilferage is found to be heavy.

Severe disciplinary action should be enforced against drivers and other staff wherever reasonable evidence is forthcoming regarding their indulgence in the stopping of trains at vulnerable points and other malpractices leading to leakage of coal.

Fuel Organisations on Railways should be suitably strengthened to implement the control measures on the lines.

A centralised system of linking 'missing' and 'unconnected' wagons should be introduced as a safeguard against possible losses of complete wagon loads.

Initial compilation of coal and operating statistics should be decentralised to Divisions to facilitate exercise of better control by local authorities.

Before compilation of coal consumption statistics there should be a general reconciliation between the figures of coal consumption and issues of coal by sheds to locomotives.

The Railways should compile and publish statistical data relating to coal consumption separately for the following services:

- (i) Passenger Services:
 - (a) Mail and Express;

- (b) Passenger and Parcel;
 - (c) Local and Suburban;
 - (d) All Passenger;
 - (e) Proportion of mixed;
 - (f) Passenger and proportion of mixed.
- (ii) Goods Services:
- (a) Through goods;
 - (b) Pick-up and van goods;
 - (c) All goods;
 - (d) Proportion of mixed;
 - (e) Goods and proportion of mixed.

Coal Beneficiation And Other Measures

(i) In order to guarantee reliability and uniformity in quality of future supplies, the time is ripe for the establishment of washeries in certain fields to upgrade non-coking coal; and

(ii) In order to counteract any fall in the handling capacity of locomotives during the present difficult period, mechanical stockers should be fitted to heavy goods locomotives as far as practicable even though coal consumption may go up.

Detailed schemes should be worked out immediately for setting up washeries at Anuppur, Junardeo and Kothagudium so that the washeries may be in commission by 1961-62. For this purpose, the Central Fuel Research Institute should be requested to undertake investigations without delay.

Electrification And Dieselisation

Electrification should be undertaken as rapidly as

foreign exchange, funds and availability of power permit, preference being given to sections on which high traffic density makes this step an operational necessity.

To meet the future requirements of both industries and Railways, the Central Water and Power Commission should coordinate the planning of power development, transmission lines, and service stations.

Government should speedily develop adequate capacity for the manufacture of heavy electrical machinery and traction equipment.

All shunting services should be progressively dieselised.

-Dieselisation of main line services should be introduced where it is necessary to improve line capacity and electrification is not feasible.

High priority should be given to:

(a) Design and manufacture of diesel plant and equipment; and

(b) Increased production of diesel fuel and lubricants.

The existing refineries should step up production of diesel oil by conversion of furnace oil and the projected development of natural crude oil and refinery capacities in Assam should be utilised to the maximum extent for production of diesel oil.

Government should undertake pilot-scale investigations to study the technological and economic possibilities of the synthetic processes (b) and (c) referred to in para 100.

CENTRAL WATER AND POWER COMMISSION REORGANISATION COMMITTEE, 1957—REPORT

New Delhi, Ministry of Irrigation & Power, 1959.

Chairman : Shri B.K. Gokhale.

Members : Shri A.C. Mitra; Shri M.S. Thirumale Iyengar; Shri N.N. Iengar; Shri Indarjit Singh.

Secretary : Shri R.R. Bahl.

APPOINTMENT

The present Central Water and Power Commission was created by amalgamating the Central Water Power, Irrigation and Navigation Commission and the Central Electricity Commission. The functions of the Commission were described in Resolution No. EL.I.201(5), dated April 21, 1951, of the Government of India in the

Ministry of Natural Resources and Scientific Research. The Government of India considered that in view of the changes that had since occurred, it would be appropriate to review the work of the CW and PC to assess whether the existing arrangements were adequate for the effective performance of the duties assigned to the Commission. It was, therefore, decided and this Committee was constituted vide Ministry of Irrigation and Power office Memo No. 40(10)56-Adm. I, dated November 29, 1957.

TERMS OF REFERENCE

(i) To review the organisational structure of the Commission and to indicate the directions in which it needs to be improved or strengthened;

(ii) To examine the methods of recruitment now adopted for staffing the organisations at various levels and to recommend modifications of those methods to ensure that the Commission possesses the 'expertise' expected of it as a consultative organisation, and functions in practice as a high level expert body;

In making their recommendations the Committee may take into consideration the desirability of imparting field training to the officers on the Commission who, after some years, tend to lose touch with reality.

(iii) To indicate what broadly should be the relationship between the Commission on the one hand, the Ministry of Irrigation and Power, the Planning Commission and the States on the other;

(iv) To make any other recommendations, which are calculated to improve efficiency and promote maximum utilisation of available water and power resources in India.

Later, the following Terms of Reference were added, [vide Irrigation and Power Ministry O.M. No. 40(10)/56-Adm.I, dated January 17, 1958]:

(v) To examine the directions in which the Power Wing of the Commission should be strengthened to make it an effective agency for rendering high level technical assistance and advice in regard to the generation, transmission and utilisation of power in the following sectors:

- (a) heavy industries in the public sector;
- (b) railway electrification schemes;
- (c) production of power by nuclear energy; and
- (d) manufacturing industries producing heavy and light electrical machinery and power consuming apparatus.

(vi) To examine whether in the context of accelerated development envisaged in the Power and Irrigation Sectors of the Second Five-Year Plan and the subsequent Plans and the proposals to entrust additional duties to the Power Wing, there is a case of bifurcation of the Commission and the setting up of two organisations, one dealing with Power and the other with Irrigation, Navigation and Flood Control.

In addition to the above, the following specific problems bearing on the organisation of the CW and PC were referred to the Committee:

(i) Setting up of a Statistical and Economic Unit in the Commission.

(ii) Setting up of a unit in the Commission for assessment of efficiency of operation, maintenance and management of the electric supply undertakings in the public sector.

(iii) Declaration of the post of Director in the Commission as 'non-tenure' post.

CONTENTS

Introductory; Historical Retrospect; Constitutional

IN INDIA 1957

Position; Assessment of Existing Arrangements at the Centre and in the States; Principles of Re-organisation; Pattern of Organisation; Detailed Organisational Structure, Recruitment, Promotion, Training and other Personnel Matters; Other Administrative Matters; Conclusion; Appendices I to VI.

RECOMMENDATIONS

The functions of the C.E.A. other than arbitration, as laid down in Section 3 of the Electricity (Supply) Act, 1948, should, by an amendment of the Act, be taken out of its purview. The C.E.A. should be renamed as the Standing Arbitration Board.

The States which have not yet been able to equip themselves with technical organisations to reasonable standards, should be assisted to do so within as short a time as practicable. A time limit should be set for liquidating organisations created in the C.W.&P.C. for the purpose of rendering routine assistance to the States.

There should be a proper balance between the functions that should be organised at the Centre and in the States in the Power Sector.

An embargo should be placed on expansion of activities of the C.W.&P.C., if adequately trained staff is not available.

Each State Government/Electricity Board should have the following minimum organisations:

- (i) an investigations and planning cell; and
- (ii) a designs cell.

The States/Electricity Boards should make their own arrangements for load survey. Suitable measures, as suggested should be taken by the C.W.&P.C. to see that the States Boards do not inflate their figures.

A Plan of Assistance, on the lines of the Colombo Plan, should be organised to pool the experienced technical personnel of the Centre and the States in the I. & P. Sector, for use wherever they are needed most. The Planning Commission may appoint a Committee of two or three Engineer Consultants and a Senior Finance Officer with administration and management experience to make a quick assessment of the needs of the States in trained manpower in the I. & P. Sector.

The functions of the re-organised C.W.&P.C. should be generally to:

- (a) Formulate an all-India Plan of action embracing the Centre and the States;
- (b) Review the original work done in the States from an all-India angle; and
- (c) Assist the States with the necessary technical staff in an emergency.

For an adequate technical appreciation of the Plan proposals, the C.W.&P.C. should consolidate relevant data basin-wise and develop plans from these data in order to check that the proposals made lead to the optimum use of the resources on an economic basis, and

also that the schemes are technically sound, financially feasible, and have been fully investigated.

The responsibility of the C.W.&P.C. in the basin-wise studies should be (i) to lay down a time table for such studies, (ii) to apportion the work amongst the State Governments, and (iii) if necessary, to recommend measures for assistance to the State Governments for this purpose.

The major gaps in the basin-wise data should be filled within the next five years so that a greater degree of accuracy is imported into the planning of Irrigation and Power Projects than hitherto.

The C.W.&P.C. should not devote detailed attention to schemes costing below Rs. one crore. It may, if necessary, review such schemes broadly, when inter-State interests are involved.

The State Governments should plan in advance the priorities and types of projects costing below Rs. one crore and send to the C.W.&P.C. only a brief description of such projects in a proforma designed for this purpose, to enable the C.W.&P.C. to see (i) whether any inter-State ramifications arise, and (ii) whether an ordinary irrigation project is being included as a flood project. A detailed examination by the C.W.&P.C. will be necessary only if any projects answer the above description.

The C.W.&P.C. should plan the work of obtaining basic hydrological data necessary for basin-wise studies. The actual collection of such data should be entrusted to the States.

The Commission should lay down a definite time-schedule for basin-wise studies taking into account the part to be played by the States, and should place it before the Coordination Board of Ministers for adoption.

The Committee should periodically evaluate the basic studies and send regular reports thereon to the I. & P. Ministry and the States.

An additional post of Member should be created for a period of three to five years for implementing the programme of basic studies.

The C.W.&P.C. should continue to function as the Central Organisation for the preparation of designs of a complicated nature. Such work should be undertaken only on request and the technical officers of the State/Project concerned should be associated with the preparation of designs. A Scheme should also be drawn up for the utilisation of the experienced personnel for designs work from projects nearing completion.

Investigations should, in future, as far as possible, be taken up by the States only. The existing staff engaged on this work in the C.W.&P.C. should be dispersed to the States after the investigations in progress have been completed.

The C.W.&P.C. should prepare a programme for investigations and, in consultation with States, demar-

cate the staff required having regard to its total availability. Periodic conferences of the I. & P. Ministry and the States may be held in order to evaluate the progress made in respect of the investigations.

All projects costing below Rs. one crore should be dealt with by the State Chief Engineers except in cases where their inter-State implications are required to be examined by the C.W.&P.C.

A drill for authorisation of projects in future prescribed in this paragraph (5.32), has been suggested for adoption.

The C.W.&P.C. should not undertake construction work. The existing Erection Unit for small thermal plants may, however, continue until the States have equipped themselves for such work.

The Commission should concern itself with the progress of construction and phasing of projects by (i) receiving regular progress reports, (ii) personal visits, and (iii) by attending Central Board meetings. The evaluation of selected projects may continue to be organised by the Committee on Plan Projects.

The C.W.&P.C. should continue to function as an Attached Office. Neither its Chairman nor Members need be given any ex-officio status in the Ministry.

The following items of work should be transferred from the C.W.&P.C. to the Ministry:

- (i) Allocation of foreign exchange;
- (ii) Rationalisation and distribution of plant and machinery; and
- (iii) Allocation of scarce materials.

Technical officers may be appointed in the Ministry to handle this work.

The C.W.&P.C. should, however, be kept informed about the material prepared in the Ministry on these subjects, and should also be associated with final discussions involving high level technical appreciation.

The work relating to Parliament questions should be handled in the Ministry as far as possible. The C.W.&P.C. should be consulted only where there is a likelihood of its making some contribution.

The Commission should examine the issues referred to it as a corporate body. Important matters including projects received for scrutiny should initially be placed before the Commission. Detailed examination in the Directorates should be undertaken only after the Commission has given its directions. The Commission should also review the work of each Directorate once a month.

It would add to the efficiency of the Commission if 25 per cent of the posts of Deputy Directors and below were reduced. The details of the lower staff should be worked out in consultation with the Ministries of I.&P. and Finance.

There is considerable scope for level-jumping in the flow of work, i.e., cases, other than complicated issues,

can go from Deputy Director directly to the Member.

All fresh receipts should be seen by the Director, and he should submit the more important ones to the Member.

The work of the Commission would be adequately carried out by a Chairman, seven Members, and a Secretary.

Four out of the seven Members should deal with water resources; three with power development. The total number of Directorates should be 23.

The seven Members proposed will have the following broad distribution of work among themselves:

- (1) Planning, Investigations and Water Utilisation;
- (2) Designs;
- (3) Projects;
- (4) Basic Studies and Research,
- (5) Thermal Power;
- (6) Hydro Power and Power Systems; and
- (7) Power Utilisation.

There should be no separate Flood Wing in the Commission. The various Members should deal with such aspects of floods as pertain to subjects included in their respective charges.

Member, Planning, Investigations and Water Utilisation, will be in charge of the following Directorates:

- (i) Planning and Investigations,
- (ii) Hydrology and Statistics;
- (iii) Irrigation and Waterways; and
- (iv) Union Territories (Temporary).

Member, Designs, will have the following Directorates under him:

- (i) Canals including Flood Designs;
- (ii) Dams.

He should be placed in exclusive charge of these Directorates to enable him to devote undivided attention to designs work.

Member, Projects, will deal with the following Directorates:

- (1) Technical Examination;
- (2) Cost Control; and
- (3) Construction Plant and Machinery.

He will normally attend the meetings of the Control Boards except in cases where the presence of any other Member is necessary. He will also be in charge of miscellaneous work in the Commission, such as tendering advice to other Ministries and Projects. This work should be handled, under his guidance, by a Deputy Director.

Member, Basic Studies and Research, will have the following Directorates under him:

- (1) Manuals and Standardisation;
- (2) Basin-wise Studies; and
- (3) Research Station, Poona.

Member, Thermal Power, will be solely in-charge of the work of planning and execution of installation of

Thermal Stations. He will have the following three Directorates under him:

- (1) Thermal Stations, layout and designs;
- (2) Thermal Stations, specifications and contracts; and
- (3) Planning Cell, Neyveli (Temporary).

Active measures should be taken for training engineers in the techniques of large high pressure steam power stations.

Member, Hydro-Power and Power Systems, will deal with the following Directorates:

- (1) Hydro Stations, layout and designs;
- (2) Hydro Stations, specifications and contracts;
- (3) Technical Examination; and
- (4) Power Research, Standardisation and Manuals, Tele-Communication Coordination.

There is no justification for a separate Member for Transmission and Distribution of Power. A Senior Director should handle this work. He should also supervise hydro-electric power surveys.

The growth of low voltage distribution and rural supply lines should be reviewed in a separate Directorate in the Power Utilisation Section.

Technicians for erection and commissioning of large power generating plant should be rapidly trained and developed in the power systems of the States/Electricity Boards. The Irrigation and Power Ministry should collect from the States/Projects full details of expenditure on foreign technicians and consultants, separately for Water and Power Projects.

Two Erection Squads (one Hydro and one Thermal) may be built up in the Central Water and Power Commission on a temporary basis for helping areas that are relatively under-developed. These should in due course be transferred to the N.P.C.C.

Member, Power Utilisation, will have the following Directorates under him:

- (1) Load Surveys and Rural Electrification;
- (2) Statistics, Tariffs and Legislation; and
- (3) Union Territories (Temporary).

The States Electricity Boards should themselves undertake load survey of the areas within their jurisdiction. The field staff of the Load Survey Directorate of the Canal Water and Power Commission together with the work in hand should be transferred to the States/Boards.

It is not necessary for the Central Water and Power Commission to equip itself for rendering high level technical advice to heavy industries in the Public sector, railways, or manufacturing industries producing heavy and light electrical machinery, etc. The Commission should advise such industries only in regard to proper power supplies for their working, and standardisation of electrical equipment used by them to conform to practices employed in the field of general power supply.

To handle the increasing volume of work in this regard, two Deputy Directors may be appointed to head two Directorates in the Utilisation Section.

Administrative matters of the Commission should be handled in one place in a unified manner under the charge of the Chairman. The Chairman should be assisted by the Secretary to the Commission in managing common services.

The reorganised Commission will not have the following existing Directorates:

- (1) Plant and Machinery;
- (2) Silt and Construction Materials;
- (3) Flood Control Designs; and
- (4) Four Investigation Circles and two Flood Sections.

The work in respect of (1) will be largely transferred to the Irrigation and Power Ministry. The Directorate of Construction, Plant and Machinery, provided for under Member (Projects) would deal with construction plant layout and other construction problems.

The Directorate at (2) should be abolished and the existing laboratory at Delhi amalgamated with the Research Station at Poona.

The work at present being done in the Directorate of Flood Control Design should in future be dealt with in the Canals Directorate under Member (Designs). Similarly, the work being done in the other two sections of the Flood Wing should be distributed among the appropriate Directorates according to the nature of work. Investigation work should be transferred to the States. Any residual work in respect of flood investigations and coordination may be done in the Directorate of Planning and Investigations.

The proposal to set up a unit in the Commission for assessment of efficiency of operation and management of electric supply undertakings in the public sector should be deferred till the electricity systems in the States have gone beyond the present developmental stage and get stabilised.

The posts of Members and the Chairman should continue to be tenure posts. The normal tenure of these posts should be five years. A Chairman or Member may continue to serve up to the age of 60 years provided his total term in the Commission as a Member, Chairman or both, does not exceed five years. The field of selection for Members/Chairman should be restricted to eminent Chief Engineers with construction experience of at least two years in the capacity of Chief Engineer. A Director of the Commission will become eligible for selection only if he has acquired experience for at least two years in the capacity of Chief Engineer in a State, Project or Electricity Board.

A Selection Committee should be appointed to advise the Ministry of Irrigation and Power in the choice of Chairman and Members.

One-half of the posts in the grades of Directors and Deputy Directors should be filled by Officers on deputation from the States, and the other half should be filled by promotion of officers of the Commission in the grades next below. One-half of the posts of Assistant Directors should be filled by officers on deputation from the States, and the other half by direct recruitment through the Union Public Service Commission.

The posts of E.A.D.'s should be abolished.

There should be no cadre of Design Assistants, Computors and Draftsmen should be employed instead, for technical jobs of routine nature.

The cadre strength of the various posts below the Director's level, should be reviewed and fresh recruitment suspended till the reorganisation is completed.

The States should be persuaded to enlarge their engineering cadres to provide for an adequate reserve for deputation to the Centre. If they do not accept the proposal, the programme of work should be curtailed.

A Committee should be appointed for selection of officers from the States. The States should be associated with the procedure of selection of officers for deputation to the Commission by giving them representation on this Committee.

The period of tenure should be strictly adhered to.

No officer should become eligible for promotion to the next higher rank unless he has adequate field experience in his grade. The Commission should depute its officers to the States, Projects and Electricity Boards for field training according to a carefully planned programme.

If the heavy backlog of untrained officers does not permit arrangements being made for their training, as recommended in the Report, some suitable interim arrangements may be made to provide them with the elements of essential experience required for manning the higher posts.

The training should at present be accommodated within the present strength of the C.W.&P.C. When the strength has been fixed on the basis of a detailed work-study, a suitable training reserve should also be provided.

Full use should be made of the N.P.C.C. for imparting field training to the officers of the C.W.&P.C., by drawing a certain proportion of the staff of the Corporation from the training reserve of the Commission.

When an officer with the requisite experience is not available for promotion to a particular vacancy the available officer, not ordinarily included in the field of selection, should not be promoted on a regular basis. He should be placed in charge of the higher post on his existing salary plus a small allowance.

The selection grades should be suitably revised. These should ordinarily be intended to prevent stagnation in a cadre when an officer in the ordinary grade has

reached the maximum of the scale and avenues of further promotion are not available for the time being.

The grade of S.E. should be abolished.

The C.W.&P.C. should not be split up into two organisations

The Commission should work as a corporate body. It should hold weekly meetings to consider important technical and administrative problems. A formal record of the proceedings should be sent to the Ministry who should scrutinise them to ensure that the Commission functions as a corporate body.

There is no justification for any considerable expansion of the responsibilities of the Power Wing for rendering assistance to heavy industries in the Public Sector, railway electrification schemes, production of power by nuclear energy or industries producing heavy and light electrical machinery.

A panel of consultants drawn from the ranks of outstanding retired engineers should be constituted for consultation concerning individual projects or problems and for checking up designs originally prepared by the

C.W.&P.C.

The advice of the C.W.&P.C. in technical matters should be accepted by the Ministry of I&P., the Planning Commission and the States.

The C.W.&P.C. should continue to handle the work relating to carrying out investigations and collecting and recording power data, and coordination of activities of the planning agencies in relation to the control and utilisation of power resources. The Electricity (Supply) Act, 1948, should be amended to relieve the C.E.A. of these functions.

The engineers employed in the Control Room should be replaced by statisticians as early as possible.

Officers of middling seniority from the Commission/States should find adequate representation in the composition of delegations sent abroad.

The C.W.&P.C. should be treated on the lines analogous to the various National Laboratories and provided with proper office and housing accommodation to facilitate high-level technical work.

COMMISSION OF INQUIRY TO ASCERTAIN THE CAUSES OF THE ACCIDENT TO I DOWN BOMBAY-CALCUTTA MAIL TRAIN BETWEEN PADALI AND ASVALI, CENTRAL RAILWAY ON THE NIGHT OF NOVEMBER, 23, 1957, 1957—REPORT

Delhi, Manager of Publications, 1958. 59p.

Chairman : Justice G.D. Khosla.

Members : Dr. P. Subbarayan; Shri J.N. Nanda.

Secretary : Shri P.B. Aibara.

APPOINTMENT

The Commission of Inquiry to Ascertain the Causes of the Accident to I Down Bombay-Calcutta Mail Train Between Padali and Asvali, Central Railway on the Night of November 23, 1957, was constituted under the Ministry of Railways vide their Notification dated November 29, 1957, to enquire into the causes of this accident.

TERMS OF REFERENCE

(i) Make an inquiry into the causes of the said accident and for that purpose take such evidence as may be necessary;

(ii) State its findings as to causes of the said accident

and as to the person or persons if any, responsible therefor; and

(iii) Suggest safeguards against similar accidents in future.

CONTENTS

Introductory; The Cause of the Accident; Persons Responsible for the Accident; What Safeguards can be Suggested Against Similar Accidents in Future; Annexures A & B; Photographs; Explanatory Notes for Photographs.

CONCLUSIONS

The accident caused to the I Down Bombay-Calcutta Mail on November 23, 1957, was the result of a deliberate act of sabotage committed by some person or persons unknown.

It is impossible to suggest any measures which will

completely and effectively prevent sabotage or detect it in time to avoid an accident, but a substantial measure of security can be achieved by :

(a) The use of reversed jaw type sleepers in conjunction with the normal type on CST-9 plate-sleepered track at the rate of at least three per rail length. This measure does not involve any extra cost nor does it interfere with regular track maintenance.

(b) Welding of rail joints. This measure offers some resistance against sabotage attempts and apart from the saving in rail joints and maintenance expenditure, has the added advantage of affording smoother running and reduced wear and tear of rails and wheel tyres.

(c) A more powerful engine headlight with swivelling arrangement to light the track better and increase the possibility of detection of obstructions and track faults. The consideration of this matter should be entrusted to

a high level Committee.

(d) Effective security patrolling over those sections which previous experience has proved to be vulnerable or where acts of sabotage may be expected. Complete coordination between the District Police, Railway Police and the Railway Protection Force at all levels is imperative. The system of patrolling should include an element of surprise by laying down varying programmes of which one may be chosen at random for any particular spell. A mobile vehicular patrol acting as a supervisory check over the system of foot-patrolling will have a salutary effect. The question of associating the residents of adjoining villages should also be examined.

(e) Special legislation to provide deterrent penalties on those found guilty of attempts at train wrecking.

(f) The offering of substantial awards to those who give information leading to the arrest of saboteurs.

CHAIRMAN INDEX

ADVANI, P.B.	180	KHOSLA, G.D.	419
BADHWAR, F.C.		KRISHAN CHAND	269
BASU, A.N.	251	KRISHNAPPA, M.V.	111
BHAGAVANTAM, S.	13	KUMAR, S.L.	78
BHIDE, M.R.	34		
BHOOTHALINGAM, S.	388	LALL, S.	80
BOSE, Himansu Kumar (Diwan) CHAMANLALL	290	LOKUR, N.S.	75
	210		
CHAMPION, H.G.	224	MAHAVIR PRASAD	348
CHATTERJI, Suniti Kumar		MALIK, C.P.	109
CHAUDHURI, P.C.	139	MALKANI, N.R.	397
DANTWALA, M.L.	185	MEHTA, Asoka	308
DARLING, (Sir) Malcolm	202	MEHTA, Balvantray Gopaljee	96,115
DAS, Jagannadha		MENON, C.P. Karunakara <i>See</i> Karunakara Menon	
DATTA, S.	42	C.P.	12
DAVE, Dayashankar Trikamji	219	MENON, V.K.R.	85, 357
DESAI, Sunderlal Trikamlal	359	MITRA, A.C.	288
DESHMUKH, C.D.	31	MUDALIAR, A.L.	325
D'SOUZA, V.L.	29, 30	MUDALIAR, A. Ramaswami <i>See</i> Ramaswami Mudaliar, A.	
FULLER, John	199		
	261	NAG, Balwant Singh	143
	183	NAGARAJA RAO, A.	92
GADGIL, D.R.	36	PANT, Govind Ballabh	374
GADGIL, N.V.	113, 237	PATIL, R.K.	45
GARG, G.R.	17	PATIL, S.K.	250, 272, 284, 287,
GHANDY, (Sir) Jehangir	221	PURI, T.C.	19
GIRDHARILAL	200		
GOKHALE, B.K.	264, 414	RAGHURAMAIAH, K.	135
GOPALKRISHNAN, P.A.	19	RAJA, S.T.	162
JACOB, C.T.	18	RYAN, J.C.	388
KAPUR, T.C.		RAMACHANDRAN, G.	104
KARNAIL SINGH	119	RAMASWAMI MUDALIAR, A.	22, 69, 95
KARUNAKARA MENON, C.P.	412	RANGANATHAN, S.R.	244
KARVE, D.G.	12	RAO, A. Nagaraja <i>See</i> Nagaraja Rao, A.	
KHAN, Shah Nawaz <i>See</i> Shah Nawaz Khan	67	RAO, K.L.	147
KHER, B.G.	53	SAKSENA, B.B.	167
KHOSLA, A.N.	275	SANTHANAM, K.	158
		(Sardar) SARUP SINGH	109,166, 171

SASTRI, A.V. Visvanatha <i>See</i> Visvanatha Sastri, A.V.		SRINIVASAN, N.	408
SEN, S.R.	278	SUKTHANKAR, Y.N.	82
SEN, V.R.	214	TAPASE, G.D.	302
SHAH NAWAZ KHAN	144	TENDOLKAR, S.R.	214
SHOME, M.L.	145	THACKER, M.S.	125
SHUKLA, P.D.	411	VARMA, B.B.	101
SINHA, K.P.	86	VASIST, S.S.	1
SOOD, K.C.	282	VISVANATHA SASTRI, A.V.	304

INDEX

- Abolition, Designation of Hatch Foreman, 5
Adam's Bridge, 95
Additional Director of Public Instruction, Appointment, 106
Additional Production Potential, Targets, 112
Ad-Hoc Committee for Coir Rope, 1955, 18p
Ad-Hoc Committee on Cottonseed Oil Industry, 1957, 408
Ad-Hoc Committee on Slaughter-Houses and Meat Inspection Practices, 1955, 31
Administration, Education Department, Decentralisation, 107
Administrative Bodies, 3
Administrative Body, 6
— Appeal against Decision, 7
Administrative Cost, 9
Administrative Officer, 3
— Responsibilities and Function, 3
Advisory Committee for Libraries, 1955, 86
Agency for Management of Common Lands, Setting up, 47
Agency of State Finance Corporation, 68
Agricultural Credit Societies, 219
Agricultural Extension Staff, 112
Agricultural Extension Staff, Block Level, 112
Agricultural Planning, 111
— Economic and Financial Measures, 112
— — Agricultural Credit, Targets for, 112
— — Interest of Agricultural Production, 112
— — Marketing of Agricultural Produce, 112
Agricultural Planning, 112
— Organisational Measures, 112
— Technical Measures, 113
— — Chemical Fertilizers, Utilisation, 113
— — Crops, Research Work, 113
— — Cultivators, Advise, 113
— — Destruction of Pests and Animals, 113
— — Dry Farming Methods, 113
— — Equipment, Village Level Workers, 112
— — High Yield Crops, 118
— — Importation, Improved Seeds and Plant materials, 113
— — Improved Seeds, 113
— — — Multiplication and Distribution
— — — Irrigation, 113
— — — Japanese Method, 113
— — — Liaison between Research and Extension workers, 113
— — Local Manurial Resources, Development, 113
— — Manurial Schedules, 113
— — Sale of Improved Implements, 113
— — Supply of Spare Parts and Repair Services, 113
— — Resources, Bacterial Fertilizers, Research, 113
— Produce (Grading and Marking) Act, 1937, 201
— Production, Enactment of Legislation, 323
— Programmes, 112
— Conferences, 112
— Exhibitions, 112
— Research, 111
Agriculture, Reduce Production, 47
— Research Institutions, 118
Agriculturists Loans Act, 1884
Air Passengers, 80
— Accident Insurance Scheme, Introduction of, 80
Air Transport Council, Indian Airlines Corporation's Fares and Freight Rates, 1955, 80
Air Travel, Government Officers on Duty, 80
Ajoy River, Yearly Replacement of Sand, 146
Alcohol Committee, 1955, 92
— Consumption, Animal, Power Alcohol, 93
— Industrial Purposes, 93
— Freight Rates, 94
— Price Ceiling, 93
— production, Mahua Flowers, 93
— Raw Material, 93
— Statistics, Consumption, Industrywise, 95
— Taxation, 93
— Total Production, 93
All India Administrative Agencies, 59
— Language Policy, 58
— Cooperative Union, 221
— Council for Secondary Education, 322
— Handicrafts Board, 73
— Khadi and Village Industries Board, 105
— — Commission, 12
— — Industry Board, 73
— Library Advisory Council, Composition, 88
— — Functions, 88

- Ambar Charkha, 140
 —— Concept of Certification by Khadi Board, 142
 —— C.P.A. and Agricultural Programmes, Self Sufficiency, 142
 —— Disposal of Yarn, 142
 —— Distribution of Sets, 142
 —— Enquiry Committee, 1956, 140
 —— Establishment of Directorate, 142
 —— Experiments for Reducing, Wastage in Spiling, 142
 —— Gandhiji's Specification, 142
 —— Manufacture, Decentralised Basis, 142
 —— Marketing Organisation. Sample Rooms, 142
 —— Production, 140, 142
 —— Productivity of Yarn, 142
 —— Sets Free of Interest, 142
 —— Spinners and Instructors Training, 142
 —— Training Three Months, 142
 —— Weavers Family, 142
 —— Working Capital, 142
 —— Yarn, 141
 — Charkhas, Cost of Sets, 142
 — Cloth, Finishing and Stocking Centres, 143
 —— Finishing and Stocking Centres, Planning, 143
 —— Subsidy, 142
 — Programme, 142
 — Through Cooperatives, 142
 — Yarn, Quality Control, 143
 Arbitration, 5
 Assam Earthquake 1897, 144
 Assessment Committee on Basic Education, 1956, 104
 Assistant Traffic Manager, 3
 Associated Chambers of Commerce, 71
 Attendance, Quantum of, 8
 — And Wage Card, 4
 — Wages, 6
 Average Employment, 8
 Ayurvedic and Unani Directorate, 30
 Auxiliary Services and Library Cooperation, 89
- Banaras Hindu University, Academic Council, 345
 —— Standing Committee, 345
 —— Act, 1915, 325
 —— Appointment of Vice-Chancellor, 342
 —— Audit and Stock-taking, 347
 —— Certain Incidents, 326
 —— Chancellor and Pro-Chancellor, 342
 —— College of Music, 340
 —— Complaints Regarding Amenities, 326
 —— — to Students Seeking Admission, 326
 —— — Certain Principals and Professors, 326
 —— — Teachers Attitude in Students Indiscipline, 326
 —— — Elections to University Bodies, 626
- — Injustices done to Individual Staff Members, 326
 —— — Recruitment and Method of Advertisements, 326
 —— — University Administration, 326
 —— — Composition of the Court, 343
 —— — — Nominated Members, 344
 —— — — Representatives of Ex-Students, 343
 —— — — — Parliament, 343
 —— — Constitution, 327
 —— — Of Selection Committees, 330
 —— — — And Appointment of Teachers, 330
 —— — — University Bodies, 340
 —— — Construction of Buildings, 347
 —— — Court 341
 —— — Enquiry Committee, 1957. 325
 —— — Examinations 327
 —— — — And Examinerships, 331
 —— — Executive Council, 344
 —— — Finance Committee, 345
 —— — Founder, Madan Mohan Malaviya, 326
 —— — Increased Admissions Demand, 336
 —— — List of Disputes pending or disposed in Court of Justice against University as a party, 334
 —— — Staff Members Inter-related, 330
 —— — Law and Order, 334
 —— — Library, 346
 —— — Ministerial Staff, 347
 —— — Office Reorganisation, 346
 —— — Other Complaints and Grievances, 347
 —— — Representations, 347
 —— — Procedure to be adopted for Consideration, 337
 —— — Pro-Vice-Chancellor, 342
 —— — Rector, 342
 —— — Selection, Teaching Personnel, 345
 —— — Standards of Admission, 328
 —— — Strike, College of Technology, 332
 —— — Students Admission, 338
 —— — Welfare Problems, 333
 —— — Teacher-Politicians and Group Formations, 332
 —— — Treasurer, 342
 —— — Vice-Chancellors, 326
 —— — Visitor, 341
 —— — Women's College, 340
 Barakar and Damodar Rivers, Sand deposits, 145
 Basic Education, Administration, 107
 — and Public, 109
 — Assessment, 105
 — Boards, Establishment, 106
 — Conferences, 106
 — Characteristics, 105
 — Development 105, 108
 — Literature, 106
 — Plans and Estimates, 106
 — Quarterly, All India Magazine, 105

- Seminar, 105
- Standing Committee, 105
- Teachers Training, Matriculate Level, 106
- Urban and Rural Areas, Applicability, 109
- Village Environment, 106
- Institutions, 107
- Basic School Buildings, Construction, Rule and Regulations, 107
 - Character and Personality Development, 109
 - Community Living, 108
 - Congregational Prayers, 109
 - Craft Equipment and Repair Material, 108
 - Craft Work, 109
 - Cultural and Recreational Activities, 109
 - Examinations, 107, 109
 - Extension Work, 109
 - Facilities, 108
 - of Raw Materials, 108
 - Improvement, 107
 - Integrated Course, Eight Years, 108
 - Land Gifts, 106
 - Library, 109
 - Method of Teaching, 109
 - Teacher's Training, 107
 - Trained Headmasters, 106
 - Training Schools, 105
 - Craft Introduction, 108
 - Instructors, Appointment, 108
 - Examination, 107
 - Extension Programmes, 108
 - Improvement, 107
 - In-service Training, 108
 - Laboratories, 108
 - Land Gift, 106
 - Research Work, 108
 - Residential, 108
 - Staff, 108
 - Teaching, Pupil-teachers, 108
- Bengal-Bihar Coalfields, 290, 292
 - Analysis of Cost data, 290
- Bhadra Reservoir Development Committee, 114
 - River, 114
- Bhandarkar Oriental Research Institute, Poona, 191
- Bharat Sevak Samaj, 273
- Bhilai Steel Project, 283
- Bhoodan Movement, 46
- Bihar Land Reforms Act, 98
- Blackboards, 14
- Black Cotton Soil, 109
- Black Cotton Soil, buildings construction, 110
 - Cost of Foundations, 110
 - Crack Control measures, 110
 - Cracks, 111
 - Design and Construction, Measures, 110
 - of Beams, 110
- Foundations, 110
- Moisture Changes, Measures to Eliminate or Minimise, 110
- Repairs, 111
- Specification, 111
- Strip Foundation, 110
- Expansion Pressure, 110
- Layers Depth, 109
- Seasonal Moisture Change, 110
- Variations, 110
- Shrinking Properties, 109
- Stratum, 109
- Swelling of Deep Layers, 110
- Blast Furnace Slag Cement, 283
 - Manufacture of Portland Cement, 283
- Block Development Committees, 42
 - Officer, 117
 - Officers, 221
 - Level Extension Officers, 117
 - Librarian, 90
 - Library Fund, 92
- Bombay Dock Labour Board, 4
- Bonus Scheme Act, 98
- Bose, Subhas Chandra, 144
 - Ashes in Rankoji Temple, Tokyo, 144
 - Death, 144
 - Aircrash, 144
 - Erection of Memorial, 145
 - Memorial, Considerations in Japan, 145
 - Mortal Remains, 145
- Brahmaputra River Commission, 143
- Buildings, Multistoreyed, 251
 - Administrative and contract problems, 251
 - Site Operations, Programming and Planning, 250
 - Space Utilisation, 250
 - Structure and Materials, 250
- Projects Team of Public Works Administration, 1957 272
- Calculated Daily Time-rate, 8
- Calcutta Dock Labour Board, 4
 - Port, 2
 - Authority, 5
 - Commissioners, 18
 - Railways, Electrification, 103
 - Problems, 103
 - Scheme, 3, 5
 - Canteens, 11
 - Railway, 13
 - Cargo, 2
 - Non-availability of, 7
 - Casual Labour, 2
 - Ceiling, 8
 - Rule, 8
 - Cement, 166, 282

- Acute Shortage, 282
- Alumina, 283
- Concessional Price, 283
- Consumption, 282
- Construction of Dams, 283
- Control Order, 283
- Industry, 282
- Metric System Adoption, 283
- Masonry, 283
- Production, 283
- Walls, British Standard Code of Practice, 166
- Indian Standard Code of Practice, 166
- New Factories, 283
- Portland, 283
- Indian Standard Specifications, 283
- Pozzolanic, 283
- — and Blast Furnace Slag, Cement, 283
- Storey Height, Building Construction, 167
- Slanderness Ratio, 167
- Walls, Effective Height, 167
- Central Administered Sanskrit University, Founding, 193
- Advisory Board of Education, 105
- — — on Forest Utilisation, 139
- Board of Revenue, 136, 251, 252, 258
- Building Research Institute, 174, 283
- Committee for the Development of Meat Industry, 34
- Cooperative Bank, 220
- Council for Homoeopathic System, 29
- — — of Ayurvedic and Unani System, 29
- — — Health, 29
- Drugs Research Institute, Lucknow, 33
- Electricity Commission, 414
- Excise Tariff on Tobacco, 136
- — — Structure, 135
- Flood Control Board, 290
- Food Advisory Council, 315
- — — Technological Research Institute, Mysore, 201
- Fruit Products Advisory Committee, 200
- Government, 3, 6, 53, 216
- Library of Literatures of all Indian Languages, 66
- Manuscript Survey, Library of Microfilms, 193
- Pay Commission, 203
- Railway, Problem, 102
- Research Institute of Basic Education, 105
- Sales Tax, 262
- Sanskrit Board, 197
- — — Functions, 197, 198
- Standards Office, 78
- Virus Research Laboratory, Poona, 140
- Washeries, 99
- Water and Power Commission, 143, 147, 149, 150, 154, 289, 414, 415
- — — Additional Post of Member, Creation, 416
- — — Basin-Wise Studies, 416
- — — Hydrological Data, 416
- — — Central Organisation Function, 416
- — — Definite Time Schedule, 416
- — — Examine the Issues as a Corporate Body, 416
- — — Functions, 415
- — — Programme for Investigation, Preparation, 416
- — — Rates Section, 149
- — — Rendering High Level Technical Advice, 417
- — — Reorganisation Committee, 1957, 414
- — — Responsibilities, 416
- — — Schemes, 416
- — — Two Organisations, Should not be Split, 419
- — — Irrigation and Navigation Commission, 414
- Chambal Project, 238
- — Administration, 238
- — Agencies of Construction, 239
- — Agricultural aspects, 240
- — — Sugar Industry, 241
- — Construction Field Channels Agency, 239
- — — Programme Phasing, 239
- — — — Gandhi Sagar Dam and Kotah Barrage, 239
- — Cost, 243
- — Cultivation, 242
- — — Betterment Levy, 242
- — Cultivators, 242
- — — Incentive of Development, 242
- — Design and Construction Features, 239
- — — — Canal Lining, 239
- — — — Kotah Barrage, 239
- — — — Quality Control, 239
- — Design Organisation, 239
- — History and Salient Features, 238
- — Malaria Problem, 242
- — Personnel, 238
- — Power Generation, 242
- — — Gandhi Sagar Power Station, 242
- — — Rana Pratap Sagar, 242
- — Rana Pratap Sagar Dam, Acceleration of Construction, 239
- — Soil Erosion, 242
- — Works Needing Urgent Attention, 243
- Chief Controller of Imports, 252
- — — for Machine Tools, 126
- China, Individual Agricultural Producer's Cooperatives, 112
- Chipping and Painting Workers, 11
- Chutney Industry, 200
- — Accommodation, 201
- — Advertisements, 201

- — Assistance, 201
- — Corks Prices, 200
- — Development, 201
- · Establishment of Fruit Preservation Unit at Malda, 200
- — Excise duty of Sugar, Rebate, 200
- — Manufacture, Mango Chutney, 200
- — — Specifications, 200
- — Pickled Mango Specifications, 200
- — Primary Processing Societies, 200
- — Processing Department, 201
- — Products, Propaganda and Publicity, 201
- — Quality Salt in Pickling, 200
- — Specifications, Purchase of Bottles, 200
- — Stainless Steel Equipment, 201
- — Steam Cooking System, 201
- — Trade Agreement, 201
- Manufacturers, Adequate Equipment and Machinery, 201
- — Incentives, 201
- — Measure of Quality Standards, 201
- Production, Export, 201
- Raw Materials, 200
- — — Quality, 200
- Small Scale Industries, 201
- Class IV Staff Promotion Committee, 1957, 302
- Clerks, Estimated Requirements, 10
- Tally and Sorting, 10
- Close Planting vis-a-vis the Japanese Method, 113
- Coal Advisory Committee, 301
- Bengal-Bihar Fields, 300
- Board, 98
- Cargo Vessels, 78
- Conservation, 98
- Controller, 301
- Cost structure, 301
- — — for Bengal-Bihar, 301
- Fall in Production, 297
- Fixed Prices Versus Ceiling Prices, 297
- Grade Three, Prices, 296
- Grading, 301
- Industry, Laws Affecting, 98
- Lower Grade, 298
- Maximum Recovery, 99
- Mines (Conservation and Safety) Act, 1952, 98, 297
- — Provident Fund Act, 98
- — — Commissioner, 98
- — Regulation, 293
- — — Provision of Labour Amenities and Implementation, 293
- — Rescue Committee, 98
- — Welfare Commissioner, 98
- Coal Mining Industry, 223
- Non-Cooking, 301
- Outlying Fields other than Assam and Andhra Pradesh,
- 299
- Period of Price Fixation, 296
- Price, 290
- — Revision, 291
- — — Committee on the Bengal-Bihar Coalfields and the Outlying Coalfields (Other than Assam and Andhra Pradesh), 1957, 290
- Prices Fixed for Grades IIIA and IIIB, 298
- — Special Cases, 296
- Proposed Price Increase, 297
- Revision of Prices, 295
- Scientific and Planned Method, Exploitation, 98
- Stowing, 296
- Waste, Thin Seams, 99
- Workers, 11
- Coalfields, Surveys and Investigation, 146
- — — Expert's Appointment, 146
- Coalfields, Jharia, 146
- — Central Dumps, 146
- — — Suitable Sites, 146
- — — — Dishergarh Section, 146
- Transportation of Sand, Method, 146
- Coastal Conference, 77
- Freight, Rates, 76
- Rates, Future Proposals, 77
- Coir Board, Delegations, 19
- — Information, Statistical, 19
- — Statistics, Trade, Rail Borne, 19
- — — Sea-Borne, 19
- — Technological Department, 19
- Cordage, 19
- fibre, 19
- Coir rope, Competition, 19
- — — Aloe ropes, 19
- — — Hemp ropes, 19
- — — Manila ropes, 19
- — Exports, 19
- — — Licence, 19
- — External Consumption, 19
- — Indian Standards Institution, TDC: 14, 19
- — Material, 19
- — Principal Buyers, Countries, 19
- — — — Malaya, 19
- — — — Middle East, 19
- — — — Turkey, 19
- — Production, 19
- — — Cost, 19
- — — Statistics, 19
- — — Sea Trade, 19
- Coir Ropes, Quality, 19
- Yarn, 19
- — prices, 19
- Collectors of Central Excise, 255
- Collieries, Amalgamated Unit, 99
- — — Finance, 100

- Amalgamation, 91
 - Commission, 100
 - Objectives and Scope, 99
 - Problem, 98
 - Foreign Countries, Experience, 98
 - Rationalisation and Mechanisation, 101
 - Scheme, 99
 - Units, Valuation, 100
 - Andhra Pradesh, 290
 - Area, 99
 - Assam, 290
 - Bengal-Bihar Coalfields, 97
 - Boundaries, Adjustment, 99
 - Brokerage and Commission, 295
 - Central Legislation, 97, 100
 - Cess and Miscellaneous Items, 294
 - Consumption of Coal, 294
 - Cost of Plant, 293
 - on Power, 294
 - Damodar River Down Stream, Collection and Transportation of Sand, 145
 - Depreciation, 294
 - Depth of Working, 297
 - Employment of Labour, Effects, 101
 - Fragmentation, Seam-wise, 99
 - Gassy Nature of Mines, 297
 - Geological Disturbances, 98
 - Irregular Boundaries, 98
 - Jharia, 96
 - Lease of Sand Beds, Possession, 146
 - Majumdar Award, 291, 292
 - Managing Contractors, System of Appointment, 99
 - Mechanisation, Intensive, 99
 - Modernisation and Mechanisation, 99
 - Non-Contiguous, 99
 - Output, 99
 - Production, Minimum, 99
 - Profit, 295
 - Proper Size, 99
 - Raniganj, 96
 - Recoveries, 295
 - Royalty, 294
 - Salaries and Expenses on Administration, 293
 - Sand Dredging Pumps, 146
 - Small, Problems, 98
 - State Legislation, 97
 - Stores, 293
 - Transport of Sand by Ropeway, 146
 - Wages, 291
 - Workers, Emoluments, 101
- Colliery Control Order, 98, 295, 208, 300
 Colombo Plan, 219
 — Technical Cooperation Scheme, 219
 Commercial Committee for Interchange, 71

- Commission for the Establishment of a Hotel Training Centre in India, 1956, 183
- of Inquiry on Emoluments and Conditions of Service of Central Government Employees, 1957-59, 359
- — Inquiry on the Administration of Dalmia-Jain Companies, 1956, 214
 - — to Ascertain the Causes of the Accident to 1 Down Bombay-Calcutta Mail Train between Padali and Asvali, Central Railway, on the Night of November 23, 1957, 1957, 419
 - — — — — 565 Down Passenger Train Between Jadcherla and Mahbubnagar on the Central Railway on the Night of September 1/2, 1956, 1956, 211
- on Certain aspects of Cooperative Movement in India, 1957, 219
- Committee for the Integration of Post-Basic and Multi-purpose Schools, 1957, 411
 - of Engineers, 1957, 275
 - — and Administrators of Basic Education, 106
 - — Enquiry into Demands of Labour of Port and Dock Workers, 1956, 202
 - of Parliament on Official Language, 1957, 374
 - on Amalgamation of Collieries, 1955, 96
 - — Building Foundations in Shrinkable Soils (Black Cotton Soils), 1956, 1st Report, 109
 - — Construction of High Dams in Seismic Zones, 1956, 143
 - — Cooperative Law, 1956, 162
 - — Economy of Iron and Steel Building Construction, 1956, 171
 - — Electric Furnaces Steel Foundries and Steel Rolling Mills, 1956, 167
 - — Milk Powder Industry, 1957, 269
 - — Plan Projects, 113, 115, 237, 272, 284, 287
 - — Problems of Re-organisation, 1955, 36
 - — Size of Holdings, 1955, 42
 - — Tenancy Reforms, 1955, 45
 - to Enquire into the Position of Sand Supplies for Purposes of Stowing in the Jharia/Raniganj Coalfields after Completion of Dams by the Damodar Valley Corporation, 1956, 145
 - — Study the Question of Formulating Uniform Standards in Respect of Education and Regulation of Practice of Vaidyas, Hakims and Homoeopaths, 1955, 29
 - Commodity Controls Committee, 1953, 298
 - Companies Act, 1956, 216, 218, 304
 - — Amendment Committee, 1957, 304
 - Comptroller and Auditor General of India, 151
 - Community Development, Administrative Pattern, 117
 - — Blocks, 112
 - — Community Works, People's Participation, 117
 - — Cooperation, 118
 - — — N.E.S. Budget, 118

- — Coordination between Centre and States, 116
- — within the States, 117
- — Democratic Decentralisation, Block Level, Establishment, Elected Self Governing Institution, 116
 - — — Panchayat Samiti, 116
 - — — Annual Budget, 116
 - — — Functions, 116
 - — — Panchayats, Compulsory Duties, 116
 - — — Resource of Income, 116
 - — — Planning, 116
 - — Education, Primary, 119
 - — Social, 119
 - — Evaluation, 117
 - — Farming, 118
 - — Health Centres, 118
 - — — Common Ailments, Indigenous Remedies, 118
 - — Measures for Economy, 119
 - — — Efficiency and Control, 119
 - — Method of Reporting, 117
 - — Programme, 116
 - — Planning, 116
 - — Saghan Kshetra and Gramdan, 119
 - — Sarvodaya, 119
 - — Some Special Programmes, 119
 - — Surveys, 117
 - — Training of Personnel, 117
 - — Work Among Women and Children, 117
 - — — In Tribal Areas, 117
 - — Project Areas and National Extension Service, 142
 - — Democratic Decentralisation, 116
 - — Projects Administration, 105
 - Conciliation Board Award, 299
 - Conference of Education Ministers and Education Secretaries, 105
 - On Promotion of Jute Production, 278
 - Congress Village Panchayat Committee, 39
 - Consecutive Shifts, 8
 - Consolidated Fund of India, 159
 - Constituent Assembly, 64
 - Cooperation, 47
 - Appointment, Registrar, 220
 - Recruitment and Training, 220
 - Seminar System, 220
 - Training Centres, Libraries, 221
 - Cooperative Activities, 47
 - Book Depot, 14
 - Development and Warehousing Corporation, Creation, 68
 - — Rural Industries, 118
 - — Extension Officer, 221
 - — Farming, 36, 220
 - — Credit, 37
 - — Development in India, 112
 - — Exemption, Agricultural Income Tax, 37
 - — Experiments, 37
 - — Facilities, 37
 - — Government Assistance, Financial, 37
 - — Holdings, above the Ceiling, 36
 - — — Floor Limit, Below, 36
 - — — — Ceiling, 36
 - — Land Ownership, 36
 - — Revenue, Reduction, 37
 - — Value, 37
 - — Lands, Grant of Leases, 37
 - — Surplus and Governmental, 37
 - — Management, 37
 - — — Under Village Panchayats, 37
 - — Manager, Properly Trained, 37
 - — Registration, 38
 - — Resources, Financial, 38
 - — Societies, 38
 - — Society, 37
 - — Stock, 37
 - — — Subsidy, Expenses, Managerial, 37
 - — Supply, Fertiliser, 37
 - — — Improved Seeds, 37
 - — Materials, Local Construction, 37
 - — Techniques, 37
 - — Legislation, 162
 - — Movement, 164, 219
 - — — Agricultural Credit Societies, 219
 - — District Level, 219
 - — Service for Goods Transport, 86
 - — Societies 12, 118, 163
 - — Act, 162, 220
 - — Model Rules, 165
 - — Teaching of Members, 221
 - — Village Management, 38
 - — Cordage and Rope, Consumption, Indonesia, 19
 - — — Manufacture, 19
 - — — — Hemp, 19
 - — — — Manila, 19
 - — — — Sisal, 19
 - — Cottonseeds, Fiscal Policy, 409
 - — Oil Industry, Crushing of Non-Fuzzy Seeds, 408
 - — — Fuzzy Seeds, 409
 - — — Installed Capacity, 409
 - — — New Units Recently Under Licensed Industries (Development and Regulation) Act, 409
 - — — Speculation in Cottonseeds, 409
 - — Council of Scientific and Industrial Research, 131
 - — Cranemen, 8, 9
 - — Credit Export, Risks not to be Covered, 121
 - — — — Exchange Fluctuations, 121
 - — — — — And Devaluation Risks, 121
 - — Cultivation, Standards, 112
 - — Customs Advisory Bodies, 258
 - — Committees, 258

- — — Council, 258
- — Air Traffic, 257
- — — Problems of Airlines, 257
- — and Import Trade Control Authorities, 252
- Baggage Declaration Forms, 256
- Bills of Entry, Processing, 253
- Bonded Warehousing, 254
- Bonds and Guarantees, 254
- Cargo, Examination, 253
- Detained Goods Warehouse, 254
- — Drawbacks, 255, 262
- — — Entrepot Trade, 255
- — — Short and Excess Levies, 256
- Export Trade, 255
 - — — Control Unit, 255
 - Foreign Post Parcels, 255
 - Goods, Detention, 254
 - Government Stores, 255
 - Import and Export Duties, Changes, 256
 - — Duties, Valuation for Assessment, 253
 - — Trade Control Implementation, 252
 - Information Service, 258
 - Mixed goods, Assessment, 253
 - Muccadam's Licence, 258
 - Operations, 261
 - Organisation, 260
 - Other Important problems, 259
 - — — Air Freight, 260
 - — — Goods Consigned to Diplomatic Missions, 260
 - — — — U.N. Missions, 260
 - — — — Liaison with Port Commissioners, 260
 - — — — Miscellaneous, 260
 - — — — Payment of duties and other Charges, 259
 - — — — Provisional Assessment, 259
 - — — — Reimported goods, 259
 - — — — Temporary Imports, 259
 - — — — Valuation, 259
 - — — — Penal Proceedings, 256
 - — — — Planning of the Customs set-up, 260
 - — — — Public Relations, 258
 - — — — Rates for Demurrage, 254
 - — — — Reorganisation Committee, 1957-58, 251
 - — — — Sampling and Analytical Tests, 254
 - — — — Steamer Agents, 257
 - — — — Supervision, 258
 - — — — Tariff and Trade Control Classifications, 259
 - — — — Structure, 252
 - — — — Tourists and other Passengers, 256
 - Daily Press Telegram, 14
 - Dal Mills, 12
 - — Cess on, 12
 - Dalmia-Jain Companies, Appointment, Sole Selling Agents, 217
 - — — Blank Transfers, period of Currency, 217
 - — — Books of Account, Destruction, 218
 - — — Commission, Underwriting, 216
 - — — Compensation, Sole Selling Agents, 217
 - — — Direct taxes, Evasion, 217
 - — — Dissenting Shareholders, Powers and Obligation to acquire shares, 217
 - — — — Approved by the majority, 217
 - — — — Dummy Directors, 217
 - — — — Holding of Shares, 216
 - — — — — Blank Transfers, 216
 - — — — — Instrument of Transfer, execution, 216
 - — — — — Liquidation, 218
 - — — — — Recovery of Taxes on Income, 218
 - — — — Loans to Companies, Other Bodies Corporate, 217
 - — — — — Under the Same Management, 217
 - — — — Memorandum of Association, 215
 - — — — Objects Clause, 215
 - — — — Names of Fictitious or Non-existing Persons, 216
 - — — — — Issue and allotment of Shares, 216
 - — — — — Receipt of Minimum Subscription, 218
 - — — — — Prohibition of Allotment, 218
 - — — — Securities, 217
 - — — — — Listed, Case of, 217
 - — — — — non-listed, Case of, 217
 - — — — — Termination, Sole Selling Agents, 217
 - — — — Damodar River, area, 146
 - — — — Valley Corporation, 18, 146
 - — — — Project, 18
 - Dams, Construction, 143
 - — Dihing Basin, 143
 - — Reservoirs, 144
 - — Suitable Rock Foundation, 144
 - — Seismic Zones, Barapani and Killing dams, 143
 - Dearness Allowance, 6
 - Deccan College Research Institute, Poona, 191
 - Defaulting Employers, 9
 - Delhi Settlement, May 1954, 5
 - Demands, 4
 - Denatured Spirit, 94
 - Department of Company Law Administration, 304
 - — Food, 348
 - — Mines and Fuel, 291
 - Deputy Chairman, 6
 - — Control of, 3
 - Chief Controller of Imports, 252
 - President of Forest Research and Education, 139
 - Derrick Fitters, 10
 - — Duties of, 11
 - Development Council for Fermentation Industries including Alcohol, 95

- Dictionary of Ayurvedic and Unani Systems, 30
 Director of Economic and Statistics, 117
 —— Indigenous Systems of Medicine, 31
 —— Libraries, 90
 — General of Commercial Intelligence and Statistics, 261
 —— of Food, 315
 —— Inland Water Transport, 268
 —— Shipping, 76, 77
 —— Supplies and Disposals, 151
 Directorate, Homoeopathic Systems of Medicine, 30
 — of Inspection, Customs and Central Excises, 258
 — Social Education and Libraries, 87
 Directors of Public Instruction, 105
 Disciplinary actions, 4, 6
 — Procedure, 6
 Dispensaries, 11
 District Development Councils, 42
 — Headquarters Library, 88
 — Librarian, 90
 — Library Committee, 88
 —— Functions, 88
 — Statistical Officer, 117
 Diyung Dam Site, 143
 Dock area facilities and amenities, 11
 — Labour Board, Calcutta, 9
 —— Financial Crisis, 4
 —— Government Representatives on the, 3
 —— Madras, 4
 —— Panel of the names, Bona Fide Apprentices, 10
 —— Registers, 10
 —— Boards, 2, 4, 6, 8, 9, 10, 11, 207
 —— Regulations, 1948, 12
 — Safety Inspectors, 12
 — Workers, 8
 — Advisory Committee, 9
 — Earnings, 8
 — Employment of, 10
 — (Regulation of Employment) Act, 1948, 9, 10, 11
 —— Enquiry Committee, 1955, 1
 Documentation, 247
 Earthquakes-Assam and Upper Burma, 144
 Economic Development, 86
 Educated Unemployed, Increase in Number, 86
 — Problem of, 86
 — Responsibility, State and Centre, 86
 Education, Administration, Advisory Committee, 15
 — System, 15
 — Agricultural, 322
 — Basic, 105
 — Committee for the Andaman and Nicobar Islands, 1955, 13
 — Department, 14
 — General, Courses, 34, 35
 — Coverage, 35
 — Expenditure, 35
 — Indian Universities, 35
 — Libraries, Expansion, 35
 — Syllabuses, 35
 — Ministers' Conference, 199
 — Officer, Functions of, 15
 — Grade, 15
 — Officer's, Training in Seminars on Basic Education, 106
 — Social, 16
 — Community Centres, 16
 — Cooperation, Village Panchayats, 16
 — Department of, 16
 — Vocational, 15
 — Apprentices, 15
 — Candidates, Selection of, 15
 — General Workshop Practice and Theory, 15
 — Total Periods, 15
 — Trade Schools, 15
- Educational Authorities, Coordination, 86
 Efficient Performance of Dock work, 9
 Electric Furnaces and Steel Foundries, 170
 — Additional Scrap estimation, 171
 — Steel Furnace, 170
 — Capacity of Steel furnaces, 170
 — Existing Steel Foundries, 170
 — Financial Difficulties, 170
 — Graphite Electrodes Manufacture, 171
 — Installation of Large Furnaces, 170
 — Large Scale Production, 171
 — Material Deterioration, 171
 — Melting Capacity, 171
 — Melting Scrap, 171
 — Mysore Iron and Steel Works, 171
 — Electric Furnace Expansion, 171
 — Production of Ingots or Billets, 170
 — Scrap de-control, 171
 — Scrap export, 171
 — Silica Sands Supply, 171
 — Steel Casting, Estimated Demand, 170
 — Steel Industry, 171
 — Transport and Freight Rates Facility, 171
 Elementary Education, 106
 — Improvement, 106
 — Schools, Conversion, Basic Schools, 105
 EMU, 102
 EMU Rakes, 102, 103
 Emoluments and Conditions of Service of Central Government Employees, 359
 — Government Employees, 361
 — All India Transfer Liability, 368
 — Allowances, 367
 — City Compensatory, 367
 — Rent Free Quarters, 367

- — — — Rent Free Quarters and House Rent, 367
- — — — Travelling, 368
- — — — Casual Leave, 369
- — — — Central and State Governments, 361
- — — — — Disparity, 361
- — — — — Local Bodies, Disparity, 361
- — — — Class II Services and Posts, 365
- — — — Dearness Allowance, 361
- — — — Fixation of Pay in New Scales, 367
- — — — Headquarters Organisation of the Government of India, 365
 - — — — Higher Salaries, 361
 - — — — Hours of Work, 368
 - — — — Leave Entitlements, 369
 - — — — Loans for Purchase of Conveyance, 368
 - — — — Medical and Public Health Staffs, 366
 - — — — Minimum Remuneration, 361
 - — — — Office Staff Outside the Secretariat, 365
 - — — — Overtime Allowance, 369
 - — — — Pay Scales, 362
 - — — — — Class I, 362
 - — — — — Class II, 362
 - — — — — Class III, 362
 - — — — — Class IV Staffs, 366
 - — — — — Workshop Staffs, 366
 - — — — Posts and Telegraphs Department, 366
 - — — — Public Holidays, 369
 - — — — Railways, 366
 - — — — Scientific Staffs, 365
 - — — — Special Pay, 367
 - — — — Union Territories, 367
 - — — — Weekly Off, 368
- Employees, Central Government, Casual Leave, 369
 - — — — Classification of Service, 374
 - — — — Disciplinary Proceedings, 374
 - — — — Education Assistance, 372
 - — — — Economic Conditions and Developmental Planning, 360
 - — — — Efficiency in the Public Service, 374
 - — — — Government Servants Conduct Rules, 373
 - — — — Housing Facilities, 371
 - — — — Leave Entitlements, 369
 - — — — — Earned Leave, 370
 - — — — — Extraordinary Leave, 370
 - — — — — Maternity Leave, 370
 - — — — — Sick Leave, 370
 - — — — — Study Leave, 370
 - — — — — Travel Concessions, 372
 - — — — Medical Facilities, 371
 - — — — Machinery for Negotiation and Settlement of Disputes, 373
 - — — — Overtime Allowance, 369
 - — — — Political Rights, 373
 - — — — Principles of Pay and Conditions of Service, 360
- — — — Promotion and Character Rolls, 372
- — — — Public Holidays, 369
- — — — Retirement Benefits, 370
- — — — Right of Association, 373
- — — — Statistical Requirements, 374
- — — — Superannuation Age, 370
- — — — Temporary Employees, 373
 - — — — — Casual Labour, 373
 - — — — — Workcharged Staff, 373
- — — — Uniforms, Protective Clothing, 372
- — — — Working Conditions, 372
 - — — — — Canteen Facilities, 372
 - — — — — Staff Welfare, 372
- Employer-Employee Relations, 5, 9
- Employers, Disciplinary Powers, 6
 - Register, 6
 - Removal of the name, 6
 - Registration Fee for, 5
 - Representative and Supervisors of, 6
 - Employment, Casual, 2
 - Exchange Register, 4
 - Monthly, 5
 - Total, 2
- Engineering Consultancy Work, 83
- Education, Expansion, 82
- Industry, 131
- Institutions, Establishment and Expansion, 83
 - Standards, 83
 - Teachers, 83
 - Foreign Scholarship, 83
 - Personnel, Advance Recruitment, 83
 - Committee, 1955, 82
 - Demand and Supply, 82
 - Regional Aspect, 82
 - Foreign Consultants, 84
 - Heavy Industries, Development, 82
 - Higher Grades, 82
 - Physical Shortages, 84
 - Recruitments, Future Policy, 84
 - Through Public Service Commission, 84
 - Shortages, 84
 - Standards, 83
 - Uniform Conditions of Service, 84
 - Railways, Afflux, 277
 - Bridges, Clearance, 277
 - Design of Foundations and training works, 276
 - Design of Waterways, 276
 - Determination of Maximum Discharge, 275
 - — — — for the Design of Waterways of Bridge, 275
 - — — — of Waterways, 276
 - — — — Free-Board, Embankments, 277
 - — — — Minimum Free-board for Bridges, 276
 - — — — Pier Foundations, Depth of Scour, 276
 - — — — Plans, Long-term, 276

- — — Short-term, 275
- Subjects, 83
- Teachers, Field Experience, 83
- Engineers, All India Service, 84
- Foreign Training, 83
- — — Advance Mapping, 83
- Railway Bridges, Measures to Ensure Safety, 277
- Existing Bridges, 277
- Protection Works, 277
- Refresher Training, 83
- Training, Post Graduate, 83
- Entertainment of Workers, 9
- Establishment of a Hotel Training Centre in India, 183
- Estimates Committee relating to Forest Research Institute and Colleges 1953-54, 183
- Ethyl Alcohol, 95
- European Common Market, 261
- European Free Trade Area, 261
- European Travel Commission, 231
- Excise Supervision, Cost, 95
- Executive Officer, 3, 6
- Expenses, Stevedoring, 2
- Transport, 2
- Expert Committee on Coal Consumption on Railways, 1957, 412
- Expert Committee on Economy in the Use of Cement in Building Construction, 1956, 166
- Expert Committee on the Forest Research Institute and Colleges, Dehradun, 1956, 139
- Export, All India Agency for Pre-shipment Inspection and Surveys, 264
 - and Import, 9
 - Agricultural Production, 262
 - Canalising through Single Agency, 262
 - Cooperatives, 263
 - Credit, Contract (or Trading) Limit, 121
 - Credit Limit, 121
 - from Banks, 262
 - Exporter's Risks, 120
 - Guarantee Committee, 1956, 119
 - Scheme, 119
 - Insurance, 120
 - — — Claims payable, How and When, 123
 - — — Export Finance, 122
 - — — Percentage of Cover, 121
 - — — Premium Rates, Basis of, 123
 - — — Split of Risks, 122
 - — — Spread of Risks, 122
 - — — Period, Risks Covered, Exports of Capital Goods, 121
 - — — — of Consumer Goods, 121
 - — — — of Light Capital Goods, 121
 - — — — of Raw Materials, 121
 - — — — Post-shipment, 121
 - — — — Post-shipment, Default Risk, 120
- — — Diversion risks, 120
- — — Import Control Risks, 120
- — — Insolvency Risks, 120
- — — Omnibus Risk, 120
- — — Repudiation Risks, 120
- — — Risks, 120
- — — Transfer Risk, 120
- — — War and Civil War Risks, 120
- — Pre-shipment Risks, 121
- Duty, 262
- Establishment of Standing Committee of Representatives of Trade and Industry, 264
- External Trading operations, 262
- Export Freight, 262
- Railways, 262
- House, 263
- Import Bank, Establishment, 263
- Industrial Production, 262
- Markets, 261
- Non-quota items, 262
- Promotion, 262
- — — Committee, 1957, 261
- — — Council, 261, 263
- Risks Insurance Corporation, 262
- — — Market Development Plan, 262
- Road Transport Facilities, 264
- Trade, 263
- Export Transactions, 263
 - through State Trading Corporation, 263
- Exports, Better-priced Indian Commodities, 262
- Entrepot Trade, 262
- Grading Schemes, 264
- Indian Arbitration Association Formation, 264
- Under-developed Countries, 263
- Exporters, Compulsory Registration, 264
- Risks, 120
- Far-reaching Repurcussions, 9
- Federation of Hotel and Restaurant Association of India, 232
- Federation of Indian Chambers of Commerce and Industry, 71, 263
- Filaria, 118
- Finance Commission, 1956, 158
 - Account of Sales Tax, 161
 - Additional Duties, 160
 - — — Export Duty, Jute, Net Proceeds, 159
 - — — Immovable Property, Gross Value, 159
 - — — Income Tax, Percentage of Net Proceeds, 159
 - — — States, Percentage of Net Proceeds, 159
 - — — Jammu and Kashmir, additional duty, 160
 - — — Net Proceeds, 161
 - — — Revenues, States, Grants-in-aid, 159
 - — — Scheme of Devaluation, 161
 - — — Tax on Railway Fares, 161

- Net Proceeds, 161
- Union Territories, Taxes Payable, 159
- Five-year Plan, First, 47, 82
 - Second, 47, 82, 180, 219, 261, 357
 - Requirements, 158
 - First and Second, 68
 - Large Schemes, 68
 - Hydro-electric, 68
 - and Thermal Generation, 68
 - First-aid Classes, 12
 - Equipment, 11
- Flood Control Boards, 290
 - Catchment Areas of the Multi-purpose Dams, 289
 - Central Loan Assistance, 290
 - Soil Conservation Board for Vetting and Approval, 290
 - Deccan Plateau, 289
 - Future Plans, 289
 - Himalayas with their Foot Hills, 289
 - Indo-Gangetic Plain, 289
 - Method of, 289
 - Organisation, 289
 - River Commissions, 290
 - Schemes, 289
 - Priorities, 289
 - Continuing Schemes, 289
 - Emergent Schemes, 289
 - State Technical Advisory Committees, 290
 - Damage Data, 289
 - Embankments Construction, 289
 - Forecasting, 289
 - Moderating effect, Reservoirs, 289
 - Problems, 290
 - Protection Works, 288
 - Food Distribution, 309
 - Short-term Policy, 309
 - Policy, 309
 - Prices, 308
 - Problem, Effective Solution, 325
 - Production, 310
 - grains, 308
 - Additional Production, 313
 - Availability, 313
 - Ban on Exports on Private Account, 324
 - Buffer Stock Operations, 315
 - Cultivation, 322
 - Supplies of Pure Seeds, 322
 - Decontrol, 311
 - Enquiry Committee, 1957, 308
 - G.M.F. Schemes, 321
 - Import Requirement, 313
 - Increase in Wheat Output, 313
 - Insurance against Instability, 315
 - Intensification of Cultivation 313
 - (Licensing and Procurement) Order, 1952, 311
 - Maximum Price, 317
 - P.L. 480, 318
 - Policy for Price, Setting up of a High-power authority, 314
 - Foodgrains, Price Stabilisation, 311, 313
 - Rational System, 314
 - Problem of Scarcity Areas, 323
 - Production and Marketed Surplus, 320
 - Prospects for the Future, 312
 - Rationing System, 310
 - Rise in Prices, 308
 - Buffer Stock, 311
 - Causes, 310
 - Sale Operations, 315
 - Short Period Measures, 318
 - Stabilisation Organisation, 315
 - Adequate Reserve Stocks, 317
 - Control of the Marketable Surplus, 316
 - Wholesale Trade, 315
 - Dominant Share in Foodgrains Trade, 316
 - Sole buyer, 316
 - Stock of Rice, 311
 - Subsidiary Channels, 321
 - Supply, 313
 - Urban Demand, 312
 - Vigilant Price Stabilisation Board, 315
 - Ford Foundation, 34
 - Foreman, 8
 - Grade I, 5
 - Grade II, 5
 - Grade III, 5
 - and Chargemen, 10
 - Forest Labour Camps, 16
 - Department, 16
 - Research Institute, Central Library and Records, Properly designed building, 140
 - Collaboration, National Laboratories, 140
 - Forest Engineering Branch, Section for Timber Extraction, 140
 - Officers deputation, 140
 - Minor Forest Products Branch, 140
 - Personal Assistant to the President, Replacement, 140
 - Public Relations Officer, appointment of, 140
 - Regional Station for South, 140
 - Silviculture Branch, Section for Forest Influences, 140
 - Staff Cadres, 140
 - Forward Markets Commission, 409
 - Freight Structure, Rationalisation, 77
 - Fruit Products Order, 1955, 200, 201
 - Fruits, Export Promotion Council, Forming, 201
 - Gallonage Charge, 94
 - Ganga Brahmaputra Water Transport Board, 264, 268

- Gangs, Incomplete, 4
 — Resultant Reduction in Number, 4
 General Education, Indo-American Curricular Project, 34
 —— Study Team, 1955, 34
 Ghani, Old Type, 21
 — Pressed Cake, 20
 Government of India Recruitment Method, 58
 —— and Qualifications, 58
 —— Statutory Publications, 59
 — Servants Conduct Rules, 373
 Grain Storage Structures, 284
 —— Design Features, 285
 —— Other Items of Work, 285
 —— — Concrete Mix for Shell, 286
 —— — Finish of Walls, 286
 —— — Floorings, 286
 —— — Foundation, 285
 —— — Height of Walls, 286
 —— — Lighting, 286
 —— — Platform Protection, 286
 —— — Plinth height, 285
 —— — Thickness of Walls, 286
 —— — Ventilation, 286
 —— Prestressed Concrete girders and rafters, 284
 —— Shell Type design, 285
 —— — Better lighting, 285
 —— — Greater Flexibility, 285
 —— — Possibility of Reducing the Godown Space Required Per Ton of Storage, 285
 —— — Saving of Structural Steel, 285
 —— — of roofing, 284
 —— Silos, 284
 —— Timber Trusses, 284
 Gram Sevaks, 117
 — Sevikas, Training Syllabus for, 118
 Graduate Engineers, 83
 — of Ayurvedic Medicine and Surgery, 30
 — Homoeopathic Medicine and Surgery, 30
 — Unani Medicine and Surgery, 30
 — Trained Teachers, Retraining, 106
 Grow More Food Enquiry Committee, 1952, 321
 Guaranteed Minimum Wages, 9
 Gulf of Mannar, 95

 Haffkine Institute, Bombay, 33
 Handbook for Educational Administrators, 105
 — of Tobacco Excise, 138
 — Chakkis, 12
 — Centres, Government Subsidised, 13
 — Dal, Price of, 12
 — Production of Dal, 13
 — made Desks, 14
 Harijan Welfare, Central Advisory Board, 397
 Hatch-Forcemen, Apprentice, 10

 Head, Education Departments, 105
 — Master, Grade, 15
 Heavy Engineering Committee, 1957, 221
 —— Five-year Plan, Second, 223
 —— Forge/Foundry Project, 223
 —— Foundry Projects, 223
 —— Heavy Machine Building Plant, 223
 —— Mining Machinery Works, 223
 —— Production, 223
 —— — Machine tools, 223
 —— Machinc Shop, 222, 223, 224
 —— — Requirements, 224
 —— — Forging, 224
 —— — — Grey Iron Casting, 224
 —— — — Steel Casting, 224
 —— Tool Works, 223, 224
 High Court, 53
 — Dams in Seismic Zones, 143
 — — — Assam and West Bengal, 143
 — Level Committee on Floods, 1957, 288
 — School Education, 14
 — — Inspection, Medical, 15
 — — Library, 15
 — — Physical Instructors, Grade, 15
 — — Science Laboratory, 15
 — — Teachers, Unqualified and Underqualified, 1
 Higher Secondary Multipurpose School, 14
 Hindi-speaking areas, 57
 Hindustan Machine Tools, 129
 — Talimi Sangh, 105
 Homoeopathy, Course, duration, 30
 — Inquiry Committee, 1949, 30
 — Legislation, 31
 Holdings, Acquisition, 43
 — Area, Application of Ceiling, 43
 — Ceilings, Floor Limit, 44
 — — Imposition, 42
 — — Level of, 43
 — Compensation, 43
 — Instalments, 44
 — Consolidation, Legislation, Tenancy, 38
 — Floor, Level, 45
 — Landowner, Compensation, 44
 — Lands, Distribution of Surplus, 44
 — Malafide Transfers, 43
 — Method, Financing, 43
 — Revenue, Land, 44
 — — Exemptions, 44
 — — — Categories, 44
 — — — — Cattle-breeding, 44
 — — — — Dairy, 44
 — — — — Farms, Mechanised, 44
 — — — — Wool-Raising, 44
 — — — — Orchards, 44
 — — — — Plantations, 44

- Sugarcane Farms, 44
- Transactions, Benami, 43
- Hotel, 183
 - Career, 184
 - Establishments, 225
 - Federation, 185
 - Industry, 185
 - Assistance, 229
 - Code of Ethics, 230
 - Conciliation Board, 230
 - Craft and Administrative Field Work, Reorganisation, 184
 - Foreign Currency earning Tourist Industry, 185
 - Tourists, Permits, 232
 - Hygiene, Cleanliness and Food, 234
 - Indian Style Hotels, 234
 - Legislation, 230
 - Legislation, Catering and Training Establishment, Creation and Setting, 230
 - Legislation, Comprehensive Housing, 230
 - Employees Health Insurance, 230
 - Provision of Common Fund, 231
 - Minimum Wages to Trainees, 184
 - National Apprenticeship Scheme, 233
 - Places of Tourist Interest, 236
 - Development, 236
 - Prohibition, 232
 - Public Sector and Private Sector Industry, 233
 - Recruitment of Better Staff, 184
 - Relations, Government, 230
 - Service Charge and Tipping, 231
 - Standard Conciliation Machinery, 231
 - Status of Hotel Career, 184
 - Training Institutes, 232
 - Training of Hotel Personnel, 232
 - Workers, 237
 - Holidays, 237
 - Industry's Association with Management of School, 185
 - Management, Post-Centre training, 184
 - Proprietors and Companies, 185
 - Sanitation Committee, 234
 - Standard, Classification and Criteria, 225
 - Dak Bungalows, 225
 - De Luxe Category, 226
 - Five Star, 226
 - Four Star, 227
 - One Star, 229
 - Rest Houses, 225
 - Three Star, 227
 - Two Star, 228
 - Standards and Rate Structure Committee, 1957, 224
 - Training, Apprenticeship Schemes for Craft Workers, 184
 - Authoritative Repertory of Indian Dishes, Com-
 - Cost of Training, 185
 - Decor and Furnishing, 183
 - Examinations, 184
 - Full-time Courses for Managers, 184
 - Hygiene, 183
 - Kitchens Planning and Equipment, 183
 - Local Centres, Part-time Craft Training, 184
 - Protective Clothes for Cooks and Bearers, 184
 - School, Aid in Craft Training, Facility, 184
 - towards Railway and other Travel Catering, 183
 - Waiting and Cookery, 183
 - Centre, 183
 - Educational Subjects, 184
 - Establishment, 184
 - Expenditure, 184
 - Hotel Cecil at Agra, 184
 - Initial Recruitment, 184
 - Location, 184
 - Overseas Staff Recruitment, 184
 - Principal, 184
 - Residential, 184
 - Salaries, Overseas Staff, 184
 - School Residential Hotel, 184
 - Students, 184
 - Teaching Staff, 184
 - Urgent Need, 184
 - Course, Admission Qualifications, 184
 - Full-time two years, 184
 - Hydraulic Surface Grinder, 130

Income Tax, 9

Import Trade Control Policy, 262

 - Tax Act, 1961, 216

Indian Adult Education Association, 86

Airlines Corporation, 263

 - Accidents, Comparative Statistics, 80
 - Air Traffic, 80
 - Appropriate Concessional Fare Schemes for Special Purposes, 81
 - Bulk Shipment, Special Rebate, 82
 - Excess Baggage Rate, 81
 - Fare Structure, 81
 - Foreign Fares, 81
 - Market Survey, 82
 - Night Air Mail Service, 81
 - Rate Making, Objectives, 80
 - Reasonable Freight Rates, 81
 - Reasonable Passenger Fares, 80
 - Safety record, 80
 - Surplus Revenues, 80
 - High Density Traffic Routes, 80
 - Tourism, Action Taken, 80
 - Traffic, 80
 - Two Class Air Travel, 80

- Indian Central Jute Committee, 279
- Oilseeds Committee, 21
- Coal Mines Regulation, 98
- Constitution, 55-56
- Customs Tariff Guide, 252
- Delegation to China on Agricultural Planning and Techniques, 1956, 111
- Export Credit Insurance Organisation, 122
 - Structure, 124
- Risks Insurance Corporation, 125
- Income Tax Act, 262
- Industries Fair, 1955-56, 263
- Institute of Science, Bangalore, 33, 140, 243
- Journal of Foreign Commerce, 263
- Jute Mill Association, 280
- Language, Problem, 54
- Languages, 54
- Literature, 54
- Medical Council, Creation, 29
- Railways, 102
 - Act, IX 1890, 74
- Sea Customs Manual, 258
- Standards Institution, 133
 - Code 174
 - Design Codes, 175
 - Experimental Investigations, 175
 - Implementation of Standards, Handbooks and other aids, 175
 - Standards for corrosion protection, 175
 - Standards for Structural Sections, 175
 - Steel Economy Programme, 174
 - Experimental and other investigations necessity, 175
 - Formulation of Code of Practice for the use of Steel in Structures, 175
 - Standards for cold-formed light-gauge sections, 175
 - Hot-rolled sections, 175
 - Structural Steel, 175
 - Typical designs and drawings, 175
 - Welding, Standard Specifications, Codes of Practice, Preparation, 175
 - Structural Steel Sectional Committee, BDC, 7, 175
 - Rolled Steel Sections-Angles, Specifications, 175
 - Beams, Specifications, 175
 - Channels, Specifications, 175
 - Welding Codes and Standards, 175
 - Veterinary Research Institute, Izatnagar, 33
 - Indiscipline, act of, 6
 - Intensity of, 5
 - Individual Registered Workers, 4
 - Industrial Alcohol, Duty, 94
 - Cooperatives, 388
 - Administration, 396
 - Audit, 397
 - Block Level Extension Officers, 396
 - District Level, 396
 - Field Staff, 396
 - Assistance, 393
 - Board of Directors, 393
 - Central Cooperative Bank, 393
 - Indirect Aid, 391
 - Loan Applications, 390
 - Marketing, 394
 - Organisational Problems, 388
 - Other Related Matters, 397
 - Cooperative Housing, 397
 - Women's Organisations, 397
 - Provision of Credit, 392
 - Raw Material and Equipment, 391
 - Society, 389, 390
 - State Cooperative Bank, 393
 - Training and Education, 395
 - Weavers Societies, 391
 - Dispute, 3
 - Dispute Act, 101
 - Fibre, 19
 - Tribunal Award, 299
 - for Coal, 97
 - Industries Act, 393
 - (Development and Regulation) Act, 93
 - Industry, Welfare of the, 12
 - Inefficiency, Cases of, 7
 - Inland Water Transport, 264
 - Advisory Committee, 268
 - Brahmaputra and Surma Valleys, 265
 - Central Organisation for Navigable Rivers, 267
 - Committee, 1957, 264
 - Conservancy and River Training Measures, 266
 - Damodar Valley Corporation Canal, 266
 - Direct Service, Justification, 268
 - Expenditure on Country Craft, 267
 - Five-year Plan, Second, 268
 - — Third, 268
 - Hijli Tidal Canal, 266
 - Hydrographic Surveys, 265
 - Krishna and Godavari Rivers, Improvement of Navigability, 266
 - Manufacture of Craft, 268
 - Mechanisation of Country Craft, 267
 - Multi-purpose Projects, 268
 - Navigation, 267
 - Operation of Ferries, 267
 - Paradip Port Development, 266
 - Personnel, 268
 - Proper Allocation of Traffic, 268
 - Railways, Through-booking facilities, 268

- Services on Ganga and Ghagra, 266
- Tank boats, Restriction of Licensing, 267
- Tea Transport, 265
- Terminal Facilities, 265
- Traffic, 265
- Transport Bottleneck, 267
- Utilisation, 268
- Water Sport, 269
- Institutions of Higher Education, Admission, 107
- Instructions, Medium, 15
- Hindi, 16
- Primary Stage, 15
- Secondary Stage, 16
- Script Devanagari, 16
- Dialect, Car Nicobar, 16
- Insurance Act 1938, 125
- Integral Coach Factory, Perambur, 79
- Inter-library loan, 245, 247
- State Commerce Commission, 73
- Communication, 55
- Conference of the States in North-East India, 264
- River Basin of Tungabhadra Valley, 155
- University Board, 106
- Iron and Steel Building Construction, 172
 - Buildings and Situations, 172
 - Category of Steel, 174
 - Concrete, Deformed Reinforcing bars, use, 173
 - Designs, 174
 - Engineers for Structures and Foundations, 174
 - Economy, 172
 - Rational use of Steel, 173
 - Loadings on structures, Draft Code IS: 875, 173
 - Materials, Shortage, 172
 - Measures, Technical and Administrative, 173
 - Rationalisation of Design Methods, 172
 - Steel shortage, 174
 - Structural Category, 173
 - Steel, 172
 - use, 174
 - Substitute materials, 172
 - Timber, 173
 - Use of M.S. Bars, 172
- Controller, 168, 169, 173, 174
- Irrigation and Flood Control Programme, 152
 - and Power, Administrator and the Chief Engineer, Relationship, 155
 - Central Electricity Authority, 154
 - Maintenance of Efficiency, 154
 - Construction Project, Committee on Plan Projects, 156
 - Control Boards, 156
- River Valley Projects, 158
- Scrutiny of Estimates Submitted, 156
- Cooperative Arrangements, 157
- Experienced Engineering Personnel, 157
- Coordinated Development Power, 154
- Coordination of Knowledge and Experience, 154
- Instruments of Control and Planning, 154
 - Engineers, Training in Industrial Management, 157
 - Field, 147
 - Accounts Procedure, 151
 - Arrangements for Investigation etc., 148
 - Attitudes, 147
 - Construction, 150
 - Construction Plant layout, 150
 - and Machinery Committee, 151
 - Stage, Arrangements assessment, 147
 - Cost Accounting, 152
 - Control, 152
 - Designing of Dams, Arrangement, 149
 - Estimates, 149
 - Estimates and Project Reports, Preparation, 148
 - Investigation of Schemes, Five-year Plans, Second and Third, 148
 - Manual for Investigation, 148
 - Organisation in the States, Designing, 149
 - Planning, 149
 - Organisation, Setting up, 150
 - Preconstruction Stage, 147
 - Design and Estimation, 148
 - Five-year Plan, Third, Project Reports and Estimates, 147
 - Investigations, 148
 - of Projects, 147
 - Water Resources Investigation Unit, 147
 - Prompt payment, 151
 - Public Cooperation, 152
 - Realistic Long-term Schedules, 149
 - River Valley Project, 151
 - River Valley Project, Purchase for the T&P Sector, 151
 - River Valley Project, Stores, 151
 - Scarce Materials, 151
 - Cement, 151
 - Iron and Steel, 151
 - System of Cost Control, 152
 - Inspection and Control, 152
 - Labour Relations, 152
 - Land Acquisition, 152
 - O.&M. Unit, 152
 - Phasing, 152

- Work Studies, 152
- Five-year Plan, Third, Targets for investigations, 155
 - Task for, 155
 - Fundamental Factors, 147
 - Talents, Integration and Cooperation, 147
 - Man-Power Planning, 157
 - Meeting, Coordination Board of Ministers, 156
 - Organisation for Inter-State Projects, 155
 - Power benefits, Developments, 153
 - Progress and Efficiency, Evaluation, 154
 - Projects, Eradication of Corruption, 152
 - Quality Control, 156
 - Sector, Organisation, 155
 - Seminar, 157
 - Static Regulatory Administration, Attitudes, 157
 - Team on Chambal Project (Madhya Pradesh and Rajasthan), 1957, 237
 - Lakkavalli Project (Mysore State), 1956, 113
 - Minor, 349
 - Accelerated Construction steps, 350
 - Artesian Wells, 349, 353
 - Assessment of Irrigation Benefit, 350, 356
 - Bund Construction, 350, 354
 - Chain System of Tank Irrigation, 349, 351
 - Choice of Pump Sets, 349, 353
 - Construction of Open Masonry Well, 349, 353
 - Finance for Maintenance, 350, 355
 - Filter Points, 349, 353
 - Ground Water Utilisation, 349, 352
 - Kuhls in Hilly Areas, 349, 352
 - Legislative Enactments, 350, 355
 - Old Tanks, Restoration, 349, 352
 - Organisation for Maintenance, 350, 356
 - Popular Contribution, 350, 355
 - Power of Water lifting, 350, 353
 - Record of Completed Works, 350, 355
 - Recharge of Ground Water, 353
 - Sanction of Subsidy, 350, 355
 - Shortage of Technical Personnel, 350, 356
 - Spray Irrigation, 350, 354
 - Steps for accelerated Construction, 354
 - Surface Water diversion, 348, 350, 351
 - lift irrigation 349, 352
 - storage, 349
 - Tanks, Evaporation, 349, 351
 - Silting, 349, 351
 - Surplus arrangement, 349, 351
 - Tube Wells 350, 353
 - Water Distribution Channels, 350, 354
 - Wells, Improvement of Water Supplies, 350
- Italy, Tourist Hotels 230
- Jai-Bhareli Dam, 144
- Jharia and Raniganj Coalfields, 145
- Judicial Inquiry into the Causes of the Accident to Train No. 603 Tuticorin Express between Ariyalur and Kallagam Stations on the Southern Railway on November 23, 1956, 1956, 210
- Panchayats, 52
- Junior Basic School, 106
- Jute and Mesta, Raw, Deficiency, 279
- Requirement, 278
- Paddy, Parity between Prices, 280
- Controller, 280
- Cost of Production, 280
- Cultivation, 279
- Enquiry Commission's Formula, 280
- Committee, 1957, 278
- Fair Price, 280
- Fixation of Minimum Prices, 280
- Goods, Export, 278
- Five-year Plan, Second, 278
- Manufacture of Bright Hessian, 278
- Plant Protection Measures, 280
- Prices, 280
- Production Fixed, Five-year Plan, Second, 278
- Production Substitute, 279
- Raw, Future Import Policy, 280
- Requirements, 278
- Variety-wise Production, 278
- Sacking manufacturing, 280
- Self-sufficiency, Supply of Fibre, 279
- Five-year Plan, Second, 279
- Staggering of Imports, 279
- Supply of Fibre, Deficiency, 279
- Tentative Consumption, Five-year Plan, Second, 279
- Total Consumption, 278
- Requirements, 278
- Five-year Plan, First, 278
- Transport Cost, 280
- White, 279
- Jat Variety, 279
- World Market, Competition, 280
- Kashmir, Hotel Industry, 235
- Tourist Organisation, 236
- Travel Agencies, 236
- Kasturba Gandhi National Memorial Trust, 105
- Khadi and Village Industry Board, Processing of Green Mango Pickling, 201
- Board, 142
- Loom, 142
- Khalasis, duties of, 11
- Krishnamachari, T.T., 175
- Kulu and Kangra Valleys, Development, 236
- Labour Appellate Tribunal, Award, 209
- Cost, 2

- Employment of, 3
- Officers, 6
- Output, 2, 9
- — Deterioration of, 2
- Shore and Stevedore, 2
- Superintendent of, 3
- Lakkavalli Project, Adoption, Block-System, 115
 - — Canal Rules, 115
 - — System of Irrigation Management, 115
 - — Canal, Execution, 114
 - — Completion, Adequate Funds, 115
 - — Design, 114
 - — Efficiency, Construction Staff, 114
 - — Hiremalai Tunnel, 114
 - — Local Labour, 115
 - — Planning, Designing and Execution Stage, 114
 - — Shantisagar Reservoir, Problem of By-passing, 114
 - — Water rates, Revision, 115
- Land, Ceiling, 47
- Customs Stations, 255
- Development, 40
- Improvement Loans Act, 1883, 165
- Management, 40
 - — Legislation, 38
 - — — Cultivable Waste Lands, 38
 - — — Small Holders, 38
 - — Records, Maintenance, 47
 - — Recovery of Arrears of Rent, 49
 - — of Rent, 49
 - — Reforms, Administrative Machinery, 38
 - — Resources, 47
 - — Revenue, Collection, 47
- Landslides—Outer Himalayas, 144
- Language, 53
 - Administrative Personnel, Training, 58
 - Compensatory Compulsion, 57
 - English, 54, 57, 59
 - — Standard, Linguistic Ability, 58
 - — Technical Terms, 58
 - — Hindi, 55, 56, 59
 - — Medium, 57
 - — Progress, 58
 - — Propagation, 58
 - — Terms and Expressions, 59
 - — Training, Employees, 58
 - — of Comprehension, 56
 - — Policy, 66
 - — Public Administration, 57
 - — Reference Literature Production, 57
 - — Reform, China, 54
 - — — Japan, 54
 - — — Turkey, 54
 - — Regional, 59
 - — Russian, 54
 - — Terminology, 56
 - Large Farms Management, 37
 - Leave Reserve Workers, 5
 - Legislatures, 53
 - Leprosy, 118
 - Librarianship Training, 90
 - Libraries and Social Education, 91
 - Development, 244
 - — Book Selection and Book Purchase, 245
 - — Departmental Collection, 247
 - — Documentation, 247
 - — Loss of Books, 247
 - — UGC Grant, 244
 - — Promotion of Reading Habit, 246
 - — Weeding out of Books, 247
 - — Structure, 87
 - University, 245
 - Library Associations, 89
 - Buildings, Fittings and Furniture, 249
 - Committee, 90
 - — to Advise the U G.C. about Development of Libraries and their Organisation, 1957, 244
 - Finance and Administration, 91
 - Fund, 92, 245
 - Legislation, 87
 - Pattern, 87
 - Personnel, 89
 - Science, Course of Studies, 249
 - — Department, 249
 - Service, 90
 - — Minimum Standard, 87
 - — Staff, 248
 - — — Designation, 248
 - — — Qualification, 248
 - — — Salary Scale, 248
 - — — Workers, Training, 87
 - — Licence Fees, 94
 - — Linguistic Group, 57
 - — Medium, 55, 58
 - — — Change, Administrative Agencies, 58
 - — Liquor Shops, 12
 - — Listed Employers and Workers Representatives, 11
 - Local Conditions, 4
 - Employment Exchange, 4
 - Lok Sabha, 158
 - Long-Term Requirements, 4
 - Lower Damodar, 17
 - — Amta Channel, 18
 - — Concentrated Flushing Doses, 18
 - — Conservancy Board, 18
 - — — Investigations, Hydrological and Engineering, 18
 - — — Cultivation, Controlled, 18
 - — — Flood Flow, Obstruction, 17
 - — — Investigation Committee, 1955, 17
 - — — Investigations, Hydrological, 18

- — River Channel, 18
- Machine Tool Board, 131, 133
 - — Committee, 1956, 125
 - — Prototype Factory, Ambarnath, 130
 - Tools, Additional Capacity, Sheet Metal Machinery, 130
 - — — Special Machine Tools, 130
 - — — Wood Working Machinery, 130
 - — Banned Machines, 134
 - — Blanket Licences, 134
 - — Competition, 133
 - — Census, 121
 - — Demand Forecast, 126
 - — Design Facilities, 130
 - — Development and Expansion, 128
 - — Financial Assistance, 128
 - — Five-year Plan, Second, Implementation, 130
 - — Government Ordering Procedure, 134
 - — Imports, 134
 - — Inspection, 133
 - — Lack of Guidance, 127
 - — — Planned and Rapid Development, 127
 - — Manufacture, 126
 - — — Additional Capacity, 130
 - — — Manufacture, Other Small Units, 130
 - — Planning, 126
 - — Present Production, 128
 - — Production, 126
 - — Programme of Manufacture, 128
 - — Railway Requirements, 126
 - — Raw Material, 128
 - — Schlesinger's Standards, 133
 - — Small Scale Industries, 130
 - — Standard Code, 134
 - — Standardisation Work, 131
 - — Steel, Standards, 134
 - — Suggested Design Training, 130
 - — Technical Know-how, 128
 - Madras Dock Labour Boards, 5, 8
 - Scheme for, 6
 - Maithon and Panchet Hill Dam, Silt Deposits, 145
 - Malaria, 118
 - Mass Literacy, 53
 - Maximum Penalties, 8
 - Mechanical and Service Aids, 58
 - Medical Degrees Act, Amendment, 31
 - Practitioners, Registered, Ayurveda, 31
 - Practitioners, Registered, Homoeopathy, 31
 - Practitioners, Registered, Unani, 31
 - Qualifications, 31
 - Medicine, Systems, 29
 - — Ayurveda, Registration, 30
 - — Ayurvedic, 29
 - — Central Body, 31
 - — Homoeopathic, 29
 - — Homoeopathy, Registration, 30
 - — Practitioners, Registered, 31
 - — — Unclisted, 31
 - — — Unregistered, 31
 - — Register, Separate, 30
 - — Registration, Fees, 30
 - — Training and Syllabus, 29
 - — Unani, 29
 - — — Unani Registration, 30
 - Methyl Alcohol, 95
 - Micro-filming, 247
 - Milk Powder, Demand Bound to Continue, 269
 - — — for Condensed and Dried Milk, 269
 - — — Met from Imports, 270
 - — Extension Service, 271
 - — Fresh Milk, Poor Supply, 269
 - — Great Need for Milk Condensing and Drying Industry, 270
 - — — Improvement of Hygienic Quality of Milk, 270
 - — — Industry, Additional Plants, Scope for, 271
 - — — All Weather Roads, 271
 - — — Dairy Equipment, Need for Indigenous Manufacture, 272
 - — — Five-year Plan, Second, 271
 - — — Milk Surveys, 271
 - — — Surveys, Need for Central Staff, 271
 - — — Need for Research, 272
 - — — Plants Coming up, 270
 - — — Foreign Exchange Requirements, 271
 - — — Roller Drying Plants Suitability, 272
 - — — Spray Drying Plants Suitability, 272
 - Mill Oil, Excise duty, 20
 - — — General Revenues, 20
 - Mills, Power Driven, 20
 - Mills, Vegetable Oil, 20
 - Mineral Concession Rules, 100
 - Mines and Minerals (Development and Regulation) Act, 98, 100
 - Minimum Wage, 4, 7, 8
 - Ministry of Agriculture, 278
 - — Commerce, 261
 - — — and Industry, 92, 119, 125, 167, 174, 214, 269, 388, 408
 - — — Export Services Department, 263
 - — Education, 13, 22, 35, 87, 105, 185, 411
 - — Finance, 95, 136, 158, 251, 304, 351
 - — Food, 284
 - — — and Agriculture, 12, 111, 162, 219, 271, 311, 348
 - — Home Affairs, 53, 289, 374, 397
 - — Heavy Industries, 221
 - — Irrigation and Power, 143, 147, 288, 414
 - — Labour and Employment, 357
 - — Natural Resources and Scientific Research, 414
 - — Production, 96, 140, 145

- — Railways, 69, 78, 210, 275, 302
- — Steel, Fuel and Mines, 173, 230
- — Transport, 75, 183, 224, 264
- — — and Communications, 202
- — Works, Housing and Supply, 166, 171
- Minor Irrigation Committee, 1957, 348
- — Village Cooperatives, 112
- Ports, 206
- Model Cooperative Societies Bill, 163
- Molasses and Alcohol, Anticipated Movements, Five-year Plan, Second, 95
- availability, 93
- Distribution and Price, Control, 93
- Price, 93
- Monthly Register, 5
- Salary, 10
- Workers, 7, 9
- Multi-purpose Cooperative Society, 118
- lingualism, 54
- -purpose Society, 220
- -purpose Village Level Personnel, Jurisdiction, 112
- Mysore Iron and Steel Works, 283

- National Academy on Matters of Policy, 66
- Anthem, Systematic Training in Singing the—, 14
- Book Deposit Centres, 88
- Buildings Construction Corporation, 273
- — Organisation, 171
- — — Cement and Steel Consumption, 174
- Central Library, 88
- Development Council, 67, 237
- Dock Labour Board, Establishment of, 10
- Extension and Community Development Programmes, 112
- — Service, 221
- — — Blocks, 21
- — — Pattern, 112
- Forest Policy Resolution, 1952, 322
- Holidays, 9
- Institute for Training of Language Teachers, 66
- Language of Indian Languages, 66
- — Policy, 57
- Projects Construction Corporation, 239, 273
- Waterways, 268
- Netaji Inquiry Committee, 1956, 144
- Nicobar, 17
- Non-Payment of Wages, 9
- Normal Day's Wage, 9
- Time-rate Wage, 7
- Nyaya Panhayats, 52

- Occasional Employment, 8
- Offence, Repetition of, 6
- Official Language, 374
- — All-India Services, Quota System, 63

- — Commission, 1955, 53
- — Competitive Examination, Recruitment, 64
- — Devanagari Script Reform, 387
- — High Courts, Proceedings, 61
- — Hindi, 62
- — — and Regional Languages, 64, 386
- — — — Propagation and Development, 64, 386
- — Administrations, States, 60
- — — Use and Progress, 60
- — — Dynamics of the Change-over, 62
- — — Grammar, 65
- — — Language of Legislation, 60
- — — Propagation, 64
- — — Non-Hindi Areas, 64
- — — — Hindi Siksha Samiti, 64
- — Implementation, Law and Administration, 66
- — Indian Audit and Accounts Department, 59
- — — Navy Entrance Cadets, Examination, 63
- — — Script, Standardisation, 65
- — — — Devanagari, 65
- — — Language of Law and Law Courts, 60, 380
- — — — — Dynamics of the Changeover, 383
- — — — — Languages of Law Courts, 381
- — — — — Legislation, 380
- — Legislation, 60
- — Linguistic Medium, 64
- — — Standards, 64
- — Medium, of English, Continuance, 64
- — National Defence Academy Admission Examination, 63
- — — Language Programme, Implementation, 65
- — Numericals, form of, 60
- — of the Union, 57, 376
- — Press and Indian Languages, 65
- — Problem, 67
- — Provincialisation of Audit, 59
- — Public Administration, 60, 376
- — — Form of Numerals, 380
- — — Service Commission, Examinations, 63
- — — Examinations, Medium, 63
- — Regional Language, Law and Law Courts, 61
- — Script, Devanagari, Reform, 65
- — — Typewriter Keyboard, 65
- — State Administration, Use of Hindi, 379
- — — — — Progress Made, 379
- — Terminology, 375
- — Text books, Production, 66
- — Union Language and Public Service Examinations, 384
- Oil Cakes, Animals Feed, 20
- Cottonseeds, Standards, 410
- Ghani, Consumption, 20
- — — Domestic, 20
- — Filtration, 20

- Industry, Cottonseeds Cake, 410
- Association of Cottonseeds Crushers, 409
- — Financial Assistance, 409
- — Future Development, 409
- — Import of Bleaching Earth and Activated Carbon, 409
- — — Plant and Equipment, 409
- — Oil Utilisation in the Manufacture of Vanaspati, 410
- — Organisation on Cooperative Lines, 410
- — Research Problems, 409
- — Soap Stock and Soap Industry, 410
- — Transport Facilities and Railway Freight, 409
- — Vanaspati, 20
- Mills, Cess, Levy, 20
- Seeds Crushing Industry, 20
- — Ghani Oils, 20
- — Inquiry Committee, 1955, 19
- — Legislation, 21
- — — Central, 21
- — Export Permit, 20
- — Prices, 20
- — Sesamum, 20
- Sesamum, Consumption, Domestic, 20
- Overtime, 8

- Paid Holidays, 9
- Palk Bay, 95
- Panchayats, Judicial, 39
- Panchet Hill Dam, Sand Deposits, 145
- Reservoir, Distribution of Sand, Collieries, 146
- Pan-Indian levels, 56
- Linguistic Medium, 66
- Permanent Registered Workers, 4
- Personnel Officer, 4, 6, 7
- Pharmaceutical Enquiry Committee, 31
- Pharmacopoeia, 30
- Photo Identity Card, 4
- Pickle Industry, Reorganisation, 200
- Pickled Mango, Ban on Export, 201
- Piece-rate System, 8
- Planning Commission, 42, 67, 82, 85, 172, 174, 219, 250, 287
- Pool Workers, 6, 8
- Port Administration, 207
- and Dock Workers, Decasualisation of Shore Workers, 203
- — Employment, 207
- — — Holidays, 209
- — — Leave, 209
- — — Literacy Drive, 207
- — — Other Privileges, 209
- — — Overtime Work, 208
- — — — Rate of Payment, 208
- — — Pay Scales and Allowances, 202

- — — — Factors, 202
- — — — Rationalisation, 202
- — — — Retirement benefits, 207
- — — — Emoluments, 208
- — — — Provident Fund Rules, 207
- — — — Rates of Subscription, 207
- — — Working Hours, 208
- — — — Night Shift, 208
- — — — Weekly off, 208
- — Shipping Statistics Committee, 206
- Authorities, 2, 8, 9, 10, 11
- Turn Round of Shipping, 204
- Portland Cement Industries, 283
- Slag Cement, 283
- Ports, Handling of Cargoes, 207
- Railway Feeder Services, 205
- Transit sheds, 206
- Warehouses, 206
- Post-Basic Education, Recognition, 106
- — Universities, 107
- Schools, 411
- — Adequate Number, Five-year Plan, Second, 106
- — and Multipurpose Schools, 411
- — — Examination, Common Scheme, 411
- — Quality of Teachers, 411
- — Study in Humanities, 411
- — — of Crafts, 411
- — Technique of Correlation, 411
- Postgraduate Basic Teachers' Training Colleges, 106, 107
- — — Establishment, 106
- Power Alcohol Industry, 93
- and Industrial Alcohol, Producers and Users, 94
- Power-driven Dal Mills, Licensing, 12
- Primary Education, 13
- — Appointment, Drawing Teachers, 13
- — — Music Teachers, 13
- — — Physical Education Teachers, 13
- — Basic Trained Teachers Grade, 13
- — Central Library, Port Blair, 14
- — Compulsory, 14
- — Department of High School, 14
- — — Educational Exhibitions, 14
- — — Excursions, 14
- — — Officers, 14
- — Library, 14
- — Paddy Vacation, 14
- — Schools, Basic, 14
- — Primary, 14
- — Sewing and Knitting, 13
- — Teachers, Educational Qualifications, 14
- — — Matric Trained, 14
- Productivity, Decline in, 2
- of Labour, 9
- Programme Evaluation Organisation, 116

—— of Compulsory Elementary Education, 54
 Promotions, 4
 — Rule Applicable to, 5
 Proper Vigilance, 9
 Provident Fund Scheme, 8
 Public Education, System, 54
 — Health Authorities, 14
 — Libraries, 89
 — Library Service, 91
 — System, 89
 — Service Commissions, Examinations, Results, 28
 — Services, 22
 — Academic Attainment, 23
 — All India, 24
 — Central Class I Services, 24
 — Clerical, 24
 — Age Limit, 25
 — Qualifications, Secondary School Stage, 25
 — Standards, 24
 — Employment Prospects, 23
 — Examinations, 22
 — Combined Competitive, 24
 — Recruitment, 26
 — Standards, 22
 — System, 23
 — Technique, 25
 — Executive and Administrative, Age Limit, 25
 — Interim Arrangements, 26
 — Junior Officers, Executive and Administrative, 24
 — Level, 22
 — Limitation of Numbers, 27
 — Professional Services, 24
 — Promotions, Method of, 26
 — Qualifications, 23
 — Employment, 23
 — for Recruitment, Committee, 1955, 22
 — University Degrees, 23
 — Recruitment, 22, 23
 — Backward Classes, 25
 — Scheduled Castes, 25
 — Tribes, 25
 — Senior Officers, Executive and Administrative, 24
 — State Class I Services, 24
 — Technical Services, 24
 — Training, 27
 — Unemployment, 23
 Public Works Administration, 273
 — Budget Provision, 273
 — Central Design and Architectural Branch, 274
 — Contract Conditions, 273
 — Contractors Prompt Payment, 273
 — Engineering Department, 273
 — Implementation of Award, 274
 — Line of Balance Technique, adoption, 274
 — Lump Sum Contract, 273

— Projects, Check-List, 273
 — Public Works Division, 274
 — Security Deposit Stages, 273
 — Sole Arbitrator's Appointment, 273
 — Standard Schedules of Rates, 273
 — System of Technical Examination, 274
 — Tenders Acceptance, 274
 — Work Study Wing, 274
 Public Works Department, Arbitration, Scrutiny of Contractors Claims, 273
 Pulse Milling, 13
 Pulse Milling Committee, 1955, 12

 Rail-Sea Co-ordination Committee, 1955, 75
 Railway Accident, Approach Bank, Jadcherla Side, 212
 — Mahbubnagar Side, 212
 — Arrest of Saboteurs, 420
 — Bridges, Adequate Ventway, 213
 — Defective Design, 210
 — Level of Flood Water, 212
 — Structure, 212
 — Detection of Obstructions and Track Faults, 420
 — Effective Security Patrolling, 420
 — I Down Bombay-Calcutta Mail, 419
 — Flood in Marudayar River, 210
 — Water, 212
 — Preventive Measures, 212
 — Suggestions, 210
 — Duty of two Patrollers for Beat, 210
 — Passenger Trains, Communications, Portable Telephones, 211
 — Rules of Indian Railway Way and Work Manual, 210
 — Sufficient Length, Abutments of Bridges, 210
 — Training, Engineering Staff, Control of Rivers, 211
 — Y.P. Engines, Fitting, Good Glass for Visibility, 211
 — Substantial Measure of Security, 420
 — Suggested Future Safeguards, 213
 — Analysis, Severe Storms, 214
 — Bridges Resisting, 214
 — Culverts Checking, 214
 — Floodwater, Full-time Watch, 214
 — Hydrological Survey, 213
 — Hydrograph Method, 213
 — Maximum Discharge of Rivers, 214
 — Maximum Discharge of Rivers, Code of Rules for Calculating, 214
 — Systematic Hydrographic Surveys, 213
 — System of Patrolling, 420
 — Track Maintenance, 420
 — Train Wrecking, Deterrent Penalties, 420

- Legislation, 420
- Welding of Rail Joints, 420
- and Coastal Shipping, 75
- Railway Board, 210, 299
- Metric Cell, 79
- Changeover, Implementation, 79
- Codes, Revision, 79
- Engineering, Free-Board, 277
- Equipment Committee, 131
- Fares, Tax, 158
- Freight, Charges, Short-Distance, 70
- Supply of Cranes, 73
- Conditions, Wagonload, 70
- Break-of-Gauge, 70
- Consignment, Minimum Charge, Discontinuation, 70
- Export, Priority Transport, 72
- Ferry Charges, Coal Traffic, 73
- Levying, Traffic, 73
- — Sakrigali-Maniharighat, 73
- Five-year Plan, Second, Impact, 71
- Goods Classification, 71
- Coal, 72
- Coke and Patent Fuel, 72
- Industrialisation and Railway Policy, 72
- Levy, Transhipment Discontinuance, 70
- Loading and Unloading, 70
- Minimum Weight, 70
- Railways, Financial Stability, 71
- Rates in India, 69
- Rates for Wagonload, 70
- Revised Classification, 70
- Scale of Rates, 71
- Structure, 69
- Enquiry Committee, 1955, 69
- Parcel, Rates, 73
- Radical Revision, 70
- Revised Rates, 69
- Revised Rates, General Pattern, 69
- Telescopic Rates, 73
- Livestock, 73
- Statistical Information, 73
- Weight Conditions, 70
- Metric Committee, 1955, 78
- Passenger Fares Bill, 1957, 158
- Rates Advisory Committee, 74
- Tribunal, 71, 74
- Adoption, Informal Procedure, 75
- Constitution, 75
- Jurisdiction, 75
- Training Schools, 207
- Railways, Assistant Inspectors, 79
- Civil Engineering Departments, 78
- Class IV Staff Promotion, 302
- Cadre, 302
- Conservancy Staff, 303
- Designation and Duties, 302
- Direct Recruitment, 302
- Electrical Department, 303
- Engineering Department, 303
- Permanent Way Side, 303
- Illiterate Employees, 302
- Mechanical Engineering and Transport (Power) Department, 303
- Medical Department, 303
- Hospital Side, 303
- Officiating Allowance, 302
- Quota, 302
- Running Staff, 303
- Signal and Telecommunication Department, 303
- Stores Department, 303
- Transportation and Commercial Department, 303
- Training, 303
- Coal Consumption, 412
- Assessment of Losses and Wastages, 412
- Coal Beneficiation and other Measures, 414
- Control Measures, 413
- Electrification and Dieselisation, 414
- Handling of Coal and Ashes, 413
- Quality of Coal, 412
- Commercial Departments, 78
- Engineering Works, 79
- Electrification Projects, 79
- Integral Design Coaches, Production, 79
- Liability, 74
- Goods Tendered for Despatch, 74
- Mechanical Workshops, 79
- and Production Units, 79
- Planning Cells, Establishment, 79
- Traffic, Handling, 103
- Way and Works Manual, 79
- Weighing Machines, 78
- — Ajoy River, 146
- Raniganj Coalfields, Supply of Sand, Ondal Section, 146
- Transport of Sand, Examination, 146
- Rates and Costs Committee, 149
- Recognised Holidays, 9
- Record Sheet, 6
- Recruitment, Age Limits for, 4
- Direct, 4
- Refresher Course, Ayurveda, 30
- Refresher Course, Homoeopathy, 30
- Refresher Course, Unani, 30
- Refresher Courses, Institutions, 30
- Regional Director of Resettlement and Employment, 3
- Labour Commissioner, 98
- (Central), 3
- Languages, 5, 7

- Registration, Temporary, 4
 Registered Employer, 8, 10
 — Employers, Powers Against, 7
 — Workers, 4
 — Number of, 4
 — Service Record, 4
 Registers, Dock Labour Board, 10
 Registrar of Assurances, 262
 — Companies, 216
 — Cooperative Societies, 390
 Registration Committee, 10
 Regulation of Employment, 11
 Representatives, Employer's and Employees, 6
 Research Institution for Mechanical Engineering, 131
 Reserve Bank, 221, 223
 — Agricultural Credit Department, 221
 — of India, 118, 263
 — Pool Register, 5
 — Worker, 6
 Reservoirs, Suitable Sites, Loading Plant and Machinery, Installation, 146
 Retirement, Voluntary, 4
 Revenue Budgets, 162
 — Staff, 52
 Revenues, Grants-in-Aid, 158
 Riggers, 10
 River and Canal Navigation, 205
 Rolias and Kamalias, number of, 4
 Ropeways, Economical Layout, 146
 Rules of the Port, 6
 Rural Credit Survey Report, 162
 Rural Development, 47
 Rural Economics and Elements of Agriculture, 221
 Rural Welfare Departments, 105
 Sailing Vessels Committee, 206
 Sale Workers, 11
 Sales Tax, Exemption of, 13
 Sanskrit Commission, 1956, 185
 — Education, Administration and Organisation, 197
 — — — — Trusts and Endowments, 197
 — — All India Oriental Conference, 192
 — — Allied Subjects, 188
 — — Central Institute, Central Clearing House for Research Scholars, 192
 — — — — of Indology Establishment, 192
 — — College and University, 187
 — — — — Chair in Sanskrit, 187
 — — Comprehensive English-Sanskrit Dictionary of Scientific and Technical Terms, Compilation, 195
 — — Courses, Itihasa-Purana, 195
 — — Paurohitya and Karmakanda, 196
 — — Silpa-Sastra, 196
 — — Facilities, 185
 — — General, 194
 — — Language-Formula, 186
 — — Manuscript Libraries, 193
 — — — Cataloguing, 193
 — — Measures for Popularisation, 196
 — — National Plan, 198
 — — Pandit-Teachers, Scales and Grades of Pay, 187
 — — Pathasala System, 186
 — — Research Coordination, 192
 — — — Institutes, Non-Official, 192
 — — — and other Indian Languages, 188
 — — — Colleges, 187
 — — — Research, 189
 — — — — Lectures, Seminars, etc., 191
 — — — — Pathasalas and Pandits, 189
 — — — — Periodicals, 191
 — — — — Projects, 191
 — — — — Publication, 191
 — — — — Universities, 190
 — — — — Teaching, 188
 — — — — Colleges, 188
 — — — — Courses, 188
 — — — — Methods, 188
 — — — — Pathasalas, 189
 — — — — Schools, 188
 — — — — Universities, 193
 — — School Stage, Pali and Prakrit as Alternative, 186
 — — Simple Form, 196
 — — State Governments, 193
 — — — — Manuscript Library, 193
 — — — — Peripatetic Search for Manuscripts, 193
 — — Study of Ayurveda, 196
 — — Secondary Schools, 185
 — — Teaching and Research, 188
 — — Three Language Formula, 186
 — — Title of Mahamahopadhyaya, 195
 — — Traditional System and Learning, 186
 — — Two Systems Integration, 187
 — — Two Systems Integration, Pathasalas and University, 187
 — — Uniform Standard Pronunciation, 194
 — — Vedas, Oral Tradition, 195
 — — for All-India Scientific and Technical Terminology, 194
 — — Journals, 196
 — — Additional Official Language, 194
 — — Manuscripts, 193
 — — Central Manuscripts Survey, 193
 — — Respect of Value, 193
 — — Safeguards Against Decay, 193
 — — Prizes Foundations, etc., 192
 — — Subhasitas, 194
 — — Texts, Reprints, 197
 — — Uniform Script, 194
 — — Universities, 187
 Sarva Seva Sangh, 105

- Scavengers, Appointment in Other Occupations, 407
- Community Centres Establishment, 407
- Conditions of Service, 406
- — — Hours of Work, 406
- — — Leave Rules, 406
- — — Off-Day in a Week, 406
- — — Roll Call, 406
- — — Unclean Work Allowance, 406
- — — Wages, 406
- — — — Distribution, 406
- Education, 407
- Housing, 405
- Low Income Housing Scheme, 406
- Occupational Disease, 407
- Permanency of Service, 407
- Pigs Rearing, 407
- Supply of Soap, 407
- Uniform, 407
- Urinals for Men and Women, 407
- Water Supply, 407
- Workers, Full-time, 407
- — Part-time, 407
- — Women, 407
- Scavenging Conditions, 398
 - — Appointment of an Officer, 405
 - — Brooms, Long-handled, 401
 - — Cess-Pools, Collection of Night-Soil, 399
 - — Customary Rights, 404
 - — Drainage Schemes, 403
 - — — Financial Aspects, 403
 - — — Grant of Subsidy, 403
 - — — Dry-Latrines Conversion, 403
 - — — — Grant of Loan/Subsidy, 403
 - — — — in Water-borne, 403
 - — — — Rebate in Taxes, 403
 - — Enquiry Committee, 1957, 397
 - — Head Load, Night-Soil, 399
 - — Implements, 401
 - — Allowance, 401
 - — Improvement, 405
 - — Administrative Set-up, 405
 - — Latrines, 403
 - — Design, 403
 - — Market and Festival Days, 404
 - — Railways, 404
 - — Private, 404
 - — Public, 403
 - — — Rural and Semi-rural Areas, 404
 - — Local-Self Governments Departments, 405
 - — Night-Soil and Refuge, 402
 - — — Composting, 402
 - — — — Cooperative Societies, 402
 - — — — Dumping Ground, 402
 - — — — Workers, 402
 - — — — Manuring Purposes, 402
- — — Private Dumping Grounds, 402
- — — Depots, 401
- — — Manure, Gram Laxmi Gas Plant, 402
- — — Transportation, 399
- — — Wheel Barrows, 399
- — — Pail-Depots, Amenities, 401
- — — Disinfection Stations, 401
- — Persons Working in Gutters, 401
- — Private Scavengers, 398
- — — Bucket System, 399
- — Receptacle, 398
- — Rubber Gloves, Use, 398
- — Scavenging Cess, 405
- — Separation, Night-Soil, 398
- — — Urine and Ablution Water, 398
- — Sewage Disposal Plants, 403
- — Sewers, 403
 - — — Connection with Underground Drainage System, 403
- — Standardised Scraper, 398
- — State Governments, 405
 - — — Appointment, Small Committees, 405
- — Surface Drains, 403
- — Underground Drainage, 403
- — Various Schemes, 400
 - — — Administration, 400
 - — — — Financial Aspects, 400
 - — — — Washing of Latrines, 399
 - — — Dust Bins, Suitable Places, 407
 - — — Legislation, 407
 - — — Propaganda, 407
- Schemes Augmenting Food Production, 289
 - Beneficial Utilisation of Waters, 290
 - Coordination of Important Measures, 10
 - Protection, Important Urban and Industrial Communities, 289
 - Working of, 10
- School Accommodation, Improvement, 107
 - Plans, 107
 - Medical Service, 14
- Sea Customs Act, 253, 255, 258, 259
- Seasonal Fluctuations, 4
- Secondary Education, Reorganisation, 106
 - Scheme for Reorganisation, 106
- Seismic Zones, 143
 - Dihang and Luhit Dams, 144
 - Dihang Dam, 144
 - Kulsi Dam, 144
 - Manas Dam, 144
- Selected Buildings Projects Team on Grain Storage Structures, 1957, 284
 - — — Multistoreyed Buildings, 1957, 250
 - — — Slum Clearance, 1957, 287
- Seminar on the Role of Libraries in Social Education, September-October, 1955, 86

- Senior Basic Schools, 106
 — — — (Middle Schools) Chouldari, 14
 — — — (Middle School) Headmaster, 14
 — — — (Middle Schools) Rangat, 14
 — — — (Middle Schools), Tusonabad, 14
 Service, Length of, 10
 Sethusamudram Authority, Creation of, 96
 — Canal, 96
 — Legislation, 96
 — Passage, 95
 — Project Committee, 1955, 95
 — Shipyard, 96
 Sewa Gram, 16
 Ship-building Yard, 263
 Shipping Companies, 10, 11
 — Additional Requirement, 10
 — Permanent Staff, Tallying and Sorting of Work, 10
 — Development, 76
 Ships, Deterioration in the Turn Round, 2
 Shore Labour, 2
 — Workers, 8
 Signallers, Duties of, 11
 Signalling Work, 5
 Sirdars and Mates, 4
 Slaughter Houses, 31
 — — Abattoir, Establishment, 31
 — — Accommodation, 32
 — — Animal Glands, 33
 — — — and Organs, 33
 — — — Utilisation, 33
 — — Bleeding Rails, 33
 — — Blood, Collection, 33
 — — Pharmaceutical Purposes, 33
 — — Butchers and Flayers, 32
 — — Byproducts, 32
 — — Casings, Export Trade, 33
 — — Cold Storage, Facilities, 32
 — — Conditions, Sanitary, 32
 — — Examination, Animals, 32
 — — — Ante-mortem, 32
 — — Foreign Aid Programmes, 34
 — — Hides and Skins, Sale, 33
 — — Improvement, 32
 — — Incinerators, 32
 — — Inspection, Qualified Veterinary Officers, 32
 — — Intestines Washing Facilities, 32
 — — Lairage, 32
 — — Livestock Markets, Location, 32
 — — Meat, Export Trade, 33
 — — — Inspection, 32
 — — — Service, 34
 — — — Production, 32
 — — — Transport, 32
 — — Motor Transport, Fly-proof, 32
 — — Provision, Hide Curing Yards, 33
 — — Urban, 32
 — — Veterinary Officers, Adequate Numbers, 32
 Slaughtering Fees, 32
 Slum Clearance, 287
 — — Acts, 288
 — — Basic Issues, 287
 — — Creation of Housing Corporation, 287
 — — Dormitory Accommodation, 288
 — — Enactment of Model Town Planning Legislation, 287
 — — Examination of Rent Control Acts, 287
 — — Problem, Definition of Slum and Magnitude, 287
 — — Rehabilitation of Sub-Standard Buildings, 287
 — — Improvement, 287
 — — Prevention, 287
 — — Service, 287
 Small-Scale Industries, 86, 180
 — — — Board, 181
 — — — Development of, 86
 Soap Factories, 20
 Social Education Officer, 16
 — Security, 357
 — — Assam Tea Plantations Provident Fund Scheme Act, 357
 — — Bonus Schemes Act, 357
 — — Coal Mines Labour Welfare Act, 357
 — — — Provident Fund, 357
 — — Employees Provident Funds Act, 357
 — — Employees' State Insurance Act, 357
 — — Existing Enactments, 357
 — — Industrial Dispute Act, 357
 — — Maternity Benefit Act, 357
 — — Measures, 357
 — — Mica Mines Labour Welfare Fund Act, 357
 — — Old Age Scheme, 359
 — — Pension Schemes, 358
 — — Pensions of Reasonable Amount, Provision, 358
 — — Plantation Labour Act, 357
 — — Schemes, 357
 — — Survivorship Pension-cum-Gratuity, 351
 — — Workmen's Compensation Act, 357
 — Welfare Board, 105
 Soil Conservation, 44
 — — Organisation, 289
 — Engineer, 111
 — Erosion, 46
 Southern Railway, Electrification, 102
 Soviet Team of Heavy Engineering, 221, 223
 — — — Machinery Experts, 222, 223
 Special Officer Abolition of the Post of, 4
 — Officers, Institution of, 3
 Speed Money, 9
 Standard Indian Trade Classification, 252
 — Output, 7

- Standing Arbitration Board, 415
 State and District Librarians, 90
 — Central Librarian, 87
 — Library, 90, 247
 — Functions, 87, 89
 — Cooperative Land Mortgage Bank, 165
 — Electricity Boards, 415
 — — of Madhya Pradesh and Rajasthan, 243
 — Khadi and Village Industries Commission, 13
 — Lending Library, 87
 — Library Department, 87
 — — Function, 87
 — Railway Engineering Code, 79
 — Sales (Including Purchase) Tax Laws, 138
 — Trading Corporation, 173, 205
 States, Cooperative Department, 219
 — Reorganisation Act, 162
 — — Commission, 61
 Steam Trains, Obsolete Pattern, 103
 Steel Re-rolling Industry, Existing Capacity, 118
 — — — Adequate Supply of Raw Materials, 169
 — — — Billets, Adequate Supply, 168, 170
 — — — Import Policy, 168
 — — — Production, Scrap Utilisation, 168
 — — — Economic Production, 170
 — — — Ignored, 168
 — — — Minimum Economic Unit, 169
 — — — Quality Control, 169
 — — — Quantum of Billets, 168
 — — — Replacement of Plant Machinery, 168
 — — — Re-rolled Section, Demand Trend, 168
 — — — Re-rolling Units, Improvements, 170
 — — — Revised, Classification of Re-rollers, 170
 — — — Smaller Units, 168
 — — — Single Unit, Resources and Work, 170
 — — — Subsidy, 170
 — — — Supplies of Billets and Electric Furnace Ingots, 168
 — — — Surplus Re-rolling Capacity, 169
 — — — Technical Colleges, Re-rolling Engineering Subject, 170
 Stevedore, Additional Requirements of, 10
 — Workers, 2, 5
 — Workers, Junior, 5
 — — Procedure of Booking, 5
 Stevedores, Employment of, 10
 — Institution of, 9
 Stevedoring Industry, 9
 Stitchers and Baggers, 11
 Stores Purchase Committee, 134
 Structure and Metal Division Council, 180
 Study Group on Educated Unemployed, 1955, 85
 — — Efficiency and Economy in the Irrigation and Power Sector, 1956, 147
 — — Social Security, 1957, 357
 — — — Transport Planning, 1953, 264
 Subansiri Catchment, 144
 Subansiri Dam Site, 143
 Sub-Committee of the Central Board of Transport, 77
 — — — Fruit Products Advisory Committee on Chutney Industry in India, 1956, 200
 Subscription Libraries, 91
 Subsistence Allowance, 6
 Suburban Coaching Stock, 103
 — — — Passengers, Comfort, 103
 — Resident, 101
 — Service, Seating Arrangement, 103
 — Train (Bombay, Calcutta and Madras) Over-Crowding Enquiry Committee, 1955, 101
 — — Distant Destinations, Rush Hours, Passengers, 102
 — — Electric Engines, 102
 — — Fast Long-Distance, 102
 — — Service, 102
 — — Locomotives, 102
 — — Motor Loading Work, Shifting, 103
 — — Overcrowding, 102
 — — Passengers, Census, 101
 — — Concentration, 102
 — — Season Tickets, 103
 — — Space-Time-Speed Studies, 102
 — — Standards, Below Level, 103
 — — of Punctuality, 103
 — — Straight Services, 102
 — — Terminal Facilities, 102
 — — Yards, Capacity, 103
 Sugar, 2
 — Industry, Expansion, Five-year Plans Second, 93
 Supreme Court, 53
 Superintendence, Whole time and Effective, 10
 Supervisors, Functions of, 15
 Supervisory Personnel, Functional Training, 84
 Suspension Pending Enquiry, Provision for, 6
 — Period, 6
 Taluka Development Committees, 42
 Tariff Commission, Protection, 72
 Tata Iron and Steel Companies, 283
 Tata Iron and Steel Company, 173
 Taxation Enquiry Commission, 135, 136
 Teachers, 16
 — Service Conditions, 16
 — Trained, Middle Passed, 16
 — — Graduates, 16
 — — Training, Assessment, 106
 — — Institution, 16
 — — — Evening, 16
 — — Primary School, 16
 Team for the Study of Community Projects and National Extension Service, 1956, 115

- Technical and Scientific Personnel, Appointments, Administrators, 84
- Committee on Cement, 1957, 282
- Irrigation and Power, 155
- Extension Service, 112
- Manpower Committee, 84
- Manpower Resources, 82
- Training, Apprentices, Day or Evening Classes, 182
- Assess Requirements of Third Plan, 183
- Average Period, 182
- Classes and Types of Industries, 182
- Committee, 1956, 180
- Conditions, 182
- Demand of Large, Medium and Small Sectors, 181
- Small Sectors, 181
- Establishment of Training Sections, Phasing, 182
- Existing Institutions, No Spare Capacity, 181
- Expansion of Institutional Training, 181
- Proposals, Total Cost, 182
- Factories, Unorganised Training, 182
- Immediate Programme, 182
- Cost of, 182
- Institutional Training, 181
- Instructors Training, 182
- Labour Force First, Upto Five per cent, 182
- Ultimately, Upto Eleven Point Five per cent, 182
- Present Apprenticeship Programme, 181
- Programme Falls Short of Demand, 181
- Second Plan Targets, Essential for Fulfilment, 182
- Requisite Number of Apprentices, Measure to Ensure Admission, 182
- Tehsil Development Committees, 42
- Temporary Registration, 8
- Tenancy Committee, 39
- Tenancy Reforms, 46
 - Abolition of Inams, 48
 - Administrative Agency, 51
 - Assistance for Hired Labour, 50
 - Cultivation, Labour, 50
 - Personal, 50
 - Supervision, 50
 - Risk, 50
 - Tenant, 50
 - Fair Rents, 51
 - Intermediaries, Abolition of, 47
 - Landlord's Right of Resumption, 49
 - Lease, 50
 - Ownership for Tenants, 51
 - Rights, Land, Inheritance, 48
 - Mortgage with Possession, 48
 - Owner, 48
 - Simple Mortgage, 48
 - Tenant, 48
- Transfer, 48
- of Exchange, 48
- of Partition, 48
- Security of Tenure, 49
- Self-employment, 46
- Small Owners, 49
- Tenants, Ejectments, 49
- Non-Resumable Area, 50
- Voluntary Surrenders, 52
- Rights, 52
- Tenants, Restoration, 52
- Termination of Service, 6
- Textbooks, 29
 - Dearth of, 14
- Textile Research Centre, 142
- Three Years Degree Course, 199
 - Aid, University Grants Commission, 199
 - Arts and Science Colleges, Admission, 199
 - Different System in U.P., 200
 - Estimates Committee, 1956, 199
 - of Expenditure, 199
 - Examination, Pre-University Class, 199
 - Five-year Plan, Second, 199
 - Number of Students Per College, 199
 - Quality of College Education, 199, 200
 - Syllabuses Revision, 200
 - Transitional Period, 199
 - Types of Degrees, 199
 - Thrift and Credit Societies, 220
 - Time Rate Wage, 6
 - Scale Wage, 6
 - Tobacco, 136
 - Administrative Action, 138
 - Amendment, Central Excise Rules, 138
 - Annual Stock Taking, 138
 - Biri-making, 136
 - Rate of Duty, 137
 - Broken Leaf, 137
 - Chewing Types, 137
 - Classification, 136
 - Nicotiana Rustica, 137
 - Varieties, 136
 - Collection of Annual Return, 138
 - Domestic consumption, 137
 - Denaturation, 136
 - Dust, Rawa, 137
 - Duty Free, 138
 - Expert Committee, 1956, 135
 - Export Markets, 138
 - Improvement in Control, 137
 - Lower Rated, 136
 - Maximum Scales for Condonation of Losses, Fixing, 138
 - Multipurpose Varieties, Flow of Trade, 136
 - Revenue, Incidence of Leakage, 137

- Samples, Agricultural Export Cess, 138
- Scheme of Denaturation, 137
- Separate Machinery, for Decisions in Technical Cases, 138
- Storage of Varietries, Adjudication of Losses, 138
- Tariff, 137
- Trade, 136
- Unmanufactured, Ad Valorem Tariff, 137
- V.F.C., 137, 138
- Varietries, 136
- Warehousing Centres, 138
- Weightment Registers, 139
- Yield, Higher Revenue, 137
- Tourist Department, 224, 225
- Tourists, Adequate Accommodation, 183
- State Circuit Houses and Guest Houses, 183
- Trade Control Authorities, 252
- Organisation, 259
- Short-Term Fluctuations in, 4
- Train Accident, 210
- Training Programme of Gram Sevak, 118
- Trans-Damodar Area, 18
- Tuberculosis, 118
- Tuticorin Development Project, 95

- Unemployment, Extent of, 85
- Quantum of, 86
- Total Elimination, 85
- Union Catalogues, 89
- Language, 65
- and the Educational System, 56
- Public Service Examinations, 63
- Public Service Commission, 24
- United Kingdom Heavy Engineering Mission, 222, 223
- Universities, Instructions, Medium of, 56
- University Grants Commission, 35, 106, 244

- Varanasi Sanskrit University, 194
- Vegetable Oilseeds Crushing Industry, Controller of, 21
- Vend Fees, 94
- Veneral Diseases, 118
- Vessels, Turn round of, 2
- Vice-Chancellors, 34
- Village and Small Scale Industries, 67
 - Basic Approach, 67
 - Credits, Long-Term, 68
 - Development Programmes, 68
 - Huller Mills, 68
 - Sheller-Huller Mills, 68
 - Five-year Plan, First, 67
- Technical Training Programme, 67
- Tools and Implements, 67
- Improvement of Techniques, 68
- Industries (Second Five-year Plan) Committee, 1955, 67
- Process of Development, 68
- Production Programmes, 68
- Handloom Industry, 68
- Resources and Employment, 68
- Scheme of Allocation, 69
- Community, 38, 47
- Level Workers, 112
- In-service Training, 112
- Librarians, 90
- Organisation, Administration, Higher Units, 41
- Functions, Administrative, 40
- Civil and Administrative, 40
- Land Reform, 40
- Village Panchayats, 37, 51
 - Composition, 39
 - Gradation, 39
 - Staff, 39
 - Training Centres, 39
 - Sub-Committees, 41
- Reconstruction, Official and Non-Official Agencies, 105
- Visakhapatnam Shipyard, 96
- Vishveshvaranand Vedic Research Institute, Hoshiarpur, 191
- Vocational Training, 86

- WRT's, 4
- Wages, Existing Workers, 5
- Warning in Writing, 7
- Weekly Off, 8
- West Bengal Estate Acquisition Act, 98
- Coast Trade, 77
- Western Civilisation, 54
- Wider Coast Trade, 77
- Winchmen, Category of, 4
 - Duties of, 11
- Wooden Takhtis, 14
- Wood's Despatch, 1854, 54
- Workers, Employment of, 5
 - Pending Enquiry, 7
 - Register, Removal of the Name, 6
 - Subsistence Allowance, 6
 - Welfare Fund, 9, 11
- Working Group on Industrial Cooperatives, 1957, 388
- Working Party for the Coal Industry, 298